



THE BRICKBUILDER.

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THE TWENTIETH-CENTURY RENAISSANCE.

THOSE who are in the midst of the march of progress can seldom fully realize the trend of events, nor can they often see the goal toward which they are moving, but it is impossible for any one who is wide-awake and who reads the magazines to-day to fail to appreciate that we are certainly on the road to something remarkable in the way of architectural development. With practically unbounded wealth, opportunities which are constantly enlarging, and an ability to grapple new problems which is every day increasing to meet the demand, we are now on the threshold of a renaissance in art. In every respect the existing conditions ought to be a source of satisfaction to the architect who loves his profession and his art. The time was not long ago when an architect could make a solid reputation and a financial success as a mere business man or as simply a practical constructor aside from his artistic ability, but that condition has in our judgment gone by. Practical knowledge and business ability always

command respect and will always be at a premium, but the necessity for artistic power as a manifest demand upon our architects is something which cannot be ignored. Within two years a building firm known throughout the country has organized itself into an incorporated company with a capital of twenty million dollars. Other builders are following close behind, and these large concerns are so thoroughly equipped in every practical sense that they are able to attend to the material and business functions of building operations in a most thorough manner. The architect must understand these sides of his profession, but in the struggle for success the prizes of the future are undoubtedly to go to the man who can add the greatest amount of art to his practical business ability. The designer is coming to the front as never before, and he is coming with the help and backing of builders who are thoroughly trained to every part of their work, who have ample capital and command the markets of the world. The Centennial Exhibition opened the first artistic possibilities of this country. Viewed in the light of subsequent developments it was not in any sense an artistic exhibition. The buildings were beneath criticism, with a very few notable exceptions, and the whole show was characterized by crudeness rather than excellence, but it opened the eyes of the nation and gave us a beginning. The Columbian Exhibition was a beautiful dream. We called it in those days the dream city, and it was really a tremendous step in advance in its architecture. The greatness of that step, the influence it had on the country, is unquestioned, and the fair was undoubtedly in some sense a spontaneous architectural evolution which, while having perfectly recognized precedence in detail, was unique in ensemble. Now we believe the wave of progress has gone beyond the Chicago fair, and the most casual observation will show how much better our buildings are designed than they were even ten years ago, how much more thoroughly our young men are equipped and, perhaps more important than all, how much wider and more comprehensive is the appreciation of artistic effort by the average citizen. We have the money, the men and the public sentiment. The renaissance of art is here, is all around us in our big cities, and the next quarter century will undoubtedly see even a far greater advance than was marked by the last twenty-five years of the nineteenth century.

THE United States is probably to-day the richest country in the world, and it is piling up its wealth in almost a geometrical ratio, but if we continue our policy of indifference to fire loss and allow the expense account, due to indifferent construction, to augment at

THE BRICKBUILDER.

the rate it has grown during the past few years we will be forced to either radically change our methods or go into bankruptcy. The fire waste is something appalling. The New York *Journal of Commerce* places the aggregate fire losses of the United States and Canada for 1901 at \$164,347,000. We are constantly improving our facilities for fighting fire, and our fire departments are quite as efficient as any in the world, but the damages by fire are increasing in all our large cities at a greater ratio than the increase of population. In 1896 the average loss per month was \$8,810,000. By 1900 it had grown to \$13,600,000. And during 1901 there were recorded eighteen separate fires in each of which the loss was over \$500,000. The past year was probably the worst we have had for fire loss, notwithstanding that at the same time it witnessed a more extensive use of fire-proof construction than was known before. It is but natural, therefore, that the fire insurance companies, which after all are simply the collectors and distributors of the contribution which the country makes to imperfect construction, should be bound to raise their rates very materially. The companies have recently been paying out more money than they have taken in. Between twenty and thirty companies have within the past twelve months retired from the business, believing they could no longer afford to continue in it, and but for the increase in value of the companies' vested funds undoubtedly many more would have been forced either out of business or into assignment.

The trouble with our big cities is fundamental. It is a fact that the great majority of the buildings are relics of a time when fire-proof construction was unknown and insurance was far less extensive than it is at present. There are more fire-proof buildings to the square mile in the lower part of New York than perhaps anywhere else in the world, and yet there is not a single street below the City Hall, not even excepting Broadway, where conditions are as they ought to be. A large majority of buildings in this district are of second-class construction and poor of their kind at that. In Boston there are hardly more than a dozen fire-proof buildings in the immediate business heart of the city. All the rest are in a sense fire traps which ought not to be tolerated. In Philadelphia, the corner at Broad and Chestnut Streets and a few isolated spots along the lower part of Chestnut Street afford the only real bulwark against an extended conflagration. Chicago has a greater number of fire-proof buildings than Boston, but according to the area covered the risk is probably greater in the West than in the East. And all this is in the twentieth century when we are so busy with our schemes for model cities and know so well what to do. The fact is, all our great cities must be practically rebuilt before we can have any real assurance against extended conflagration.

We present elsewhere a very complete description of the Paterson, N. J., fire, which in some respects is probably the most impressive object lesson the world has seen since the Chicago fire of 1871. No building is absolutely fire-proof; there is nothing which could withstand heat if applied in sufficient volume and under the right conditions; but the experience of the City Hall at Paterson, which is one of the few structures of fire-proof construction, shows that the more general adoption of fire-proof

principles would make such a conflagration as this utterly impossible. Large fires have never started in the construction of even a poorly planned fire-proof building. The dangers lie without or in the nature of the contents.

There is one feature of fire-proof building as at present very generally allowed in our cities which is not right and we know is not right every time we use it, and that is the use of wood for finish, especially about doors and openings in partitions. Nearly every fire of any magnitude which has started in fire-proof construction has been due to the nature of the contents, but its spread has been through these unguarded openings in otherwise fire-proof partitions. It ought to be the rule that all inside finish should be non-combustible, and that when it is considered absolutely essential that sashes should be placed in interior partitions, they should be glazed with wire glass, a material which is certainly not remarkable for its beauty as at present put upon the market, but which is not sufficiently offensive to make it seem out of place in an office building. As a matter of fact, however, most buildings when properly planned could dispense entirely with glass in partitions and thus eliminate one dangerous feature of our modern structures.

THE building laws of the city of New York provide for a board of building examiners who are empowered to hear and decide upon appeals from the decisions of the building department. Mayor Low has recently made some very wise appointments to this board, including Mr. A. F. D'Oench, who will be remembered for the excellent record he made as chief of the building department some years since and who is an architect of recognized standing and a fellow of the American Institute of Architects. The other members include Cornelius O'Reilly, representing the real estate interests; Warren A. Conover, representing the mechanics; William J. Fryer of the Society of Structural Iron Manufacturers; the chief of the fire department, Edward F. Croker; and Francis C. Moore of the New York Board of Fire Underwriters, who has been so well known for his studies of economic fire-proof construction. This board has a very large degree of power and is frequently called on to exercise considerable discretion in the interpretation and application of building laws. The board as constituted is certainly a strong one, and having the power to a very considerable extent to influence the development of new methods of construction it can easily be a prominent factor in the building industries of the ensuing years.

A CORRECTION.

Owing to a misunderstanding no credit was given, in the paper on Formal Gardens by Mr. Parsons, published in our February number, to Messrs. Carrere & Hastings as the designers of the pergolas, tea house and other architectural incidents of Mrs. Bell's garden at Madison, N. J., illustrated in connection with the article. Also by mistake Mr. Parsons was referred to as "architect" rather than by his professional title of "landscape architect."

Town Squares of North Italy.

BY WALTER H. KILHAM.

THE vast and fertile plain which stretches across the Italian peninsula, separating the great ranges of the Alps from the more southern peaks of the Apennines, has for a score of centuries supported an energetic and thrifty population which has ever been the balance wheel of the Italian states. Rome rose and fell and rose again with the revolutions of fortune's wheel; Venice became alternately one of the first cities in Europe and a quiet provincial town, vegetating in the afterglow of its decadence; but Milan with its busy workshops and Bologna with its lively population still flourish and accumulate wealth and power.

While it was not given to all of the Lombard cities to retain their prosperity up to the present time, nearly all of them experienced periods of prosperity lasting long enough to permit of the erection of a large number of elaborate and magnificent buildings, most of which, owing to the nature of the country, were built of brick and terracotta. Verona, Brescia, Cremona, Piacenza, Bologna, are names which evoke thoughts of the finest productions of the Gothic and Renaissance periods as well as of the spirit of Italian independence.

Seven centuries ago the characteristic which most distinguished Italy from other European countries was the growing importance of the populations of her towns.

grown up in secluded localities where they escaped notice until they were strong enough to assert their power. In regions where the central government was unable to exert its functions, these cities rapidly became strong and vigorous. Their citizens erected strong walls, and enacted their own laws and elected their own magistrates in safety. In the darkness of the general situation, these cities or burghs appear as the only luminous points. From their walls, which enclosed the houses grouped

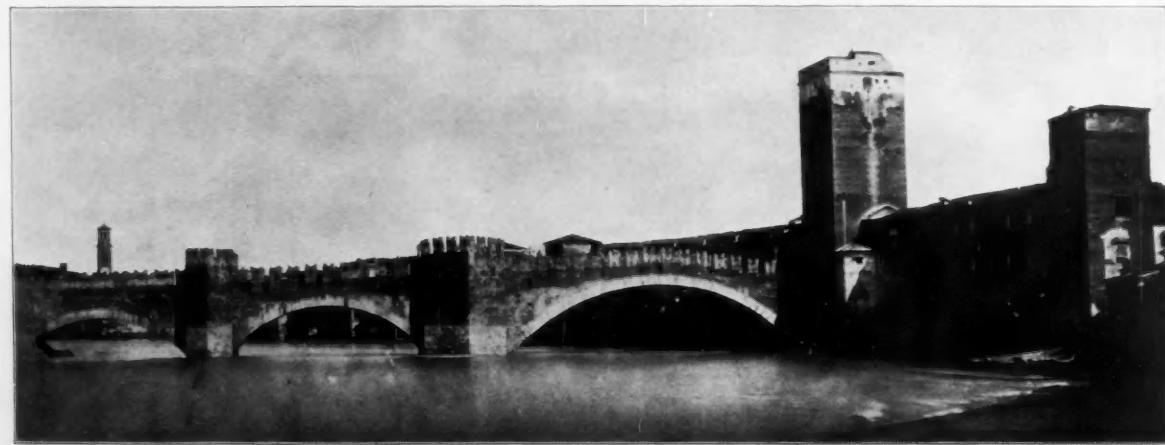
around their cathedral as a center, the burghers looked out on a country studded with the keeps of the feudal aristocracy lording it over the unconsidered serfs.

In general the bishops commanded more popularity in the cities than the outside nobility or counts, and in many cases the counts were driven to their castles, surrounded by the *contadini* or "counts' men," while the clergy remained to organize the town government of the richest and most influential burghers, or *popolo*.

The *popolo*, it appears, did not include the entire people, but was a close aristocracy of influential families who succeeded to the authority of the superseded count and held it by hereditary right. In those tumultuous times the remaining citizens were inclined to challenge this right, and from successive turmoils emerged the "commune," including the *popolo* of enfranchised burghers, and the non-qualified inhabitants, represented by consuls from the different quarters. The architecture of many of these towns where a "palazzo del popolo"



PIAZZA DELL' ERBE, VERONA.



BRIDGE OF THE CASTEL VECCHIO, VERONA.

This came about in several different ways. Some cities managed to retain the privileges which had been granted them ages before by the Roman government, and to keep them more or less intact through all the vicissitudes of the Dark Ages. Others, like Venice and Genoa, had

and "palazzo comunale" rise in different streets perpetuate the strenuous political life of those stormy times. Besides these bodies there were the councils, known by different names in different cities but perpetuating their history in the name of many a gorgeous hall



TOWER OF THE MUNICIPIO, VERONA.

and stately building, — the Parlamento, open to all inhabitants; the Gran Consiglio, only open to the *popolo*; and the Credenza, or private council.

The Crusades, which brought only ruin and wounds to the northern nations, brought business, wealth and luxury to the rising commonwealths of the Adriatic. Italian ships sailed on every sea, and the palaces of the Italian nobility were gorgeous with the brilliant products of eastern art, while the castles of France and England were but little better than hovels. Italian factories arose on every hand, and banks and money changers appeared in every city. Under these circumstances it is not strange that we find the sturdy municipalities of north Italy rivaling each other in erecting the beautiful series of town halls which still stand second only to the churches in architectural interest. The ground floors were often open, forming a loggia, under whose massive arches the citizens might stand sheltered from the weather and discuss the affairs of their city. Of this class were the buildings at Piacenza and Cremona. Grouped around the town squares, which were often outgrown by the increasing size of the city, stood the palaces of the municipality, the cathedral, the houses of the guilds and the dark-fronted dwellings of the powerful town nobles.

The Piazza dell' Erbe at Verona is one of the most picturesque of these old Italian town squares. Verona itself is a city of the most striking and varied physiognomy. It is divided into two parts by the turbid and swift-flowing Adige, which tears in a wide semicircle through the densely populated quarters, occasionally rising beyond its walls to leave unmistakable traces of its power in

ruined bridges and crumbling houses, as well as certain significant water marks on sundry buildings along its banks. The central part of the city is a delightful assemblage of softly colored red brick and plaster buildings on narrow and curving streets. Beyond these are the wide and straight thoroughfares lined with the productions of San Micheli, cold, stately, grammatical and formal. These too are often of brick, but conceal their true construction under a mask of yellow stucco. Beyond these again are the ramparts with their remarkable Renaissance portals, again the work of San Micheli, the foremost military engineer of his time, from the top of which the snowy range of the Venetian Alps lies in full view not many miles away, together with the neighboring hillsides studded with walls and forts. For Verona is still a strong place, one of the most important bulwarks of power of modern Italy, and in her barracks an army of 6,000 soldiers is constantly maintained in readiness to protect the frontier.

The student who, after visiting Rome and Venice, starts on a tour among the north Italian towns, is apt to become somewhat indifferent to the often-repeated red brick palaces and churches which line the level streets of these cities of the plain. The details, while varying in different localities, yet have much the same general character and after a few repetitions fail to excite as much interest as they deserve. But it is safe to say that the most blasé traveler will experience a new thrill when he emerges from the Via San Sebastiano into the little vegetable market, the Piazza dell' Erbe of Verona. At one end rises the white marble pillar bearing the lion of St. Mark, the ancient cognizance of the republic of Venice which the Venetians were wont to erect in the market places of their subjugated cities. Dark and weather-beaten buildings surround the square — the gloomy Municipio with its great brick tower, the Gothic houses of the



STAIRCASE IN COURT OF MERCATO VECCHIO, VERONA.

merchants and the curious, baroque Palazzo Maffei which closes up the end. In the shadow of these houses rise a

ting at one of the tables in front of the Caffé Dante at the further end of the little square, the imagination may



COVERED BRIDGE, PAVIA.

graceful shrine in the Venetian style, a canopied tribune with four marble columns, the old seat of justice, and an elaborate fountain. More in evidence than all these are the chattering market women with their loads of produce, the dusty squads of soldiers and the remarkable policemen with their long coats, tall hats and gold-headed canes. As a "town square" the Piazza dell' Erbe has an annex, the beautiful Piazza dei Signori, which is entered by a short passage. This is certainly the most dainty public square in all Italy. On one side is the charming Loggia with its delicately colored façade and tastefully restored chambers. The woodwork of the ceilings both of the outer loggia and of the interior is remarkably interesting and typically Italian in detail as well as in color.

Around the other sides of the place are the aged walls of the Mercato Vecchio and the Prefettura, and but a step removed are the famous tombs of the Scaligeri, the renowned Ghibelline family who raised Verona to her greatest glory in the fourteenth century. Sit-

easily people the dark arches of the Prefettura with the retainers of the great Can Grande and Mastino, his nephew. Brilliant as was the Scala's career, the jealousies of the various sons brought it to an untimely end. Mastino had cherished the idea of an Italian kingdom, but before his dream could be realized he died, leaving the fortunes of his house in the hands of his three degenerate sons. The youngest killed the eldest; of the two survivors the stronger slew the weaker and then died in 1371, leaving his domains to two of his bastards—one of whom, Antonio, emulating his father's example, killed the other in 1381 and three years later fell a prey to the Visconti.

The stately tower of the Municipio, which, like the Torrazzo of Cremona, seems to personify the spirit of the city, rises above the roofs with its walls of time-stained brick and the scattered puttock holes which somehow give so much effect to Italian buildings

and yet are so much avoided by modern architects. These spots of black give a piquancy and brilliancy to



INTERIOR S. ANASTASIA, VERONA.

THE BRICKBUILDER.

the mass of brickwork, like the quick black touches of pen or pencil in a spirited drawing. It would seem as though we in our decadent period might endure the sight of a quality in buildings which gave no offense to the eyes of the master builders of the *quattro cento*.

The old brick walls of the Mercato Vecchio alluded to above enclose in the courtyard one of the finest and most picturesque of the exterior stairways of Italy. The steps are covered with a finely proportioned ascending loggia, and the railings and balustrade are most charming in detail. The little shops which nestle under the arches complete the air of abandon which is so fascinating to our western eyes and which with the rapid progress of restorations is fast departing from the ancient buildings of Europe.

The finest church architecturally in Verona is Santa Anastasia, a splendidly proportioned red brick building of the thirteenth century, whose fine tower rises nobly above the rapid waters of the Adige. The group of chapels, transepts and gables crowned by the majestic campanile forms one of the most striking ensembles ever carried out in brick; and the details of the pilasters and cornices are equally worthy of study. Fine as is the exterior of Santa Anastasia, the interior is even better, and it is safe to say that a more complete or beautiful composition in the Italian Gothic style does not exist. Not only is the plan beautifully proportioned, but the entire scheme of color decoration is carried out consistently and completely. The decorations of the vaulting in the late Gothic style, dating from 1437, are particularly worthy the notice

parapets and grim brick castle, a splendid bit of color above the curving river. The old castle, the abode of Can Grande II, the greatest of the Scaligeri, from which the bridge leads to the opposite shore, is in itself one of the curiosities of Verona, but one which the public are not allowed to examine.

Beyond the Castel Vecchio you follow the embankment of the river for some distance, while the houses grow thinner, until, turning through a short street, past gardens and orchards, you emerge on the sleepy and grass-grown Piazza San Zeno, a spot the most typical of old Italy that is to be found in the entire peninsula. The quaint yellow marble façade of the church, richly stained by time, with its grotesque carved animals and figures,

is balanced by a sturdy square brick tower with forked parapets and massive walls. The brick tower, which has no particular architectural features, finds its especial value in the color contrast of its glowing red surface with the soft yellow of the church façade, completing a most picturesque and striking composition, which without it would be almost commonplace, as may be seen by covering it for a moment with the hand.

Allusion was made just above to the bridge of the



S. ANASTASIA, VERONA.

of the student of decoration. The church contains a large number of works of art and is full of interest in every corner. The great west door, for example, is a particularly attractive example of early carpentry work, with numerous small square panels and carved edges.

The river, which flows just behind the church, is one of the most picturesque features of Verona. Wide and strong, it courses foaming through the town, incidentally turning the wheels of a number of floating water mills which tug strenuously at their moorings and threaten momentarily to start down the stream. The newer bridges of the Adige show many marks of the violence of the stream in times of flood, but the old red brick Ponte del Castel Vecchio, one arch of which spans 160 feet, at the upper end of the town, still stands after six centuries as firm as ever and makes, with its Ghibelline

Castel Vecchio. The brick bridges of Italy might form the subject for a study which would reveal a mine of unworked material for the use of our latter-day practitioners in municipal art. I recall one at the entrance of the old town of Pavia, not far from Verona, which seems almost the ideal of what a bridge ought to be. The simple, powerful arches stride nonchalantly across the waters of the Ticino, carrying the delightfully quaint roof and bearing on their central pier the brick chapel which gives the central point of dignity and repose to the composition. The mediæval bridges, like those of Pavia and Verona and that of Montauban in France, seem to convey a most satisfying impression of quiet strength and suitability, forming a happy mean between the airy grace of the bridges of modern Paris and the sullen inertia of the structures of ancient Rome.

The Town Hall Series.* II.

A TOWN HALL IN CENTRAL MISSOURI.

BY EDWARD G. GARDEN.

THE very broad general requirements laid down by the editor of THE BRICKBUILDER for the "Town Hall Series" have enabled the author of the accompanying design (in order to produce a project which has something of a local flavor from a Missouri standpoint) to formulate a further set of conditions based on the climatic and topographical state of affairs at least partially existent in a town on the Missouri River, which "for the sake of euphony" we will call DeSoto.

Central Missouri has a long, hot, dry summer, a comparatively open winter, and abrupt transitions from one season to the other, and being situated on about the same parallel of latitude as

* PROGRAMME.

The problem indicated by the following programme is a town hall such as would be requisite in a village of five or six thousand inhabitants.

It is supposed to stand on the public square of the town, which square is quite closely built up with such buildings as would naturally be found in a locality of this kind. If there are any differences in grade, the town hall is supposed to occupy the highest portion of the land.

The contributors in this series represent different sections of the country, and each design will indicate not only in the matter of arrangement of plan but also in point of architectural style, the sort of thing that would be particularly appropriate for the section of the country in which the building is to be located.

In the matter of accommodations and of the sizes and disposition of the rooms, each contributor uses his own judgment, following out the idea indicated above by prepar-

Spain, the general characteristics of thick walls, overhanging eaves and other protection from heat should strongly influence the expression in design of buildings in this district.

DeSoto originally had its being on account of an obstruction to navigation in the shape of a sand bar caused by an abrupt bend of the Missouri around a bluff on the south bank of the stream. This bar also furnished a practicable ford except in flood times, and the settlement rapidly became an important trading point.

With the growth of the town, houses were built upon the high ground of the plateau, and the road from the river bank naturally found its way by the easiest grade up a ravine or draw that is preserved to-day in the form of Bridge Street.

The bottom lands of the north bank, being subject to overflow, were not considered as a suitable town site, and finally the original strip of land at the foot of the bluff was given up to warehouses and simi-

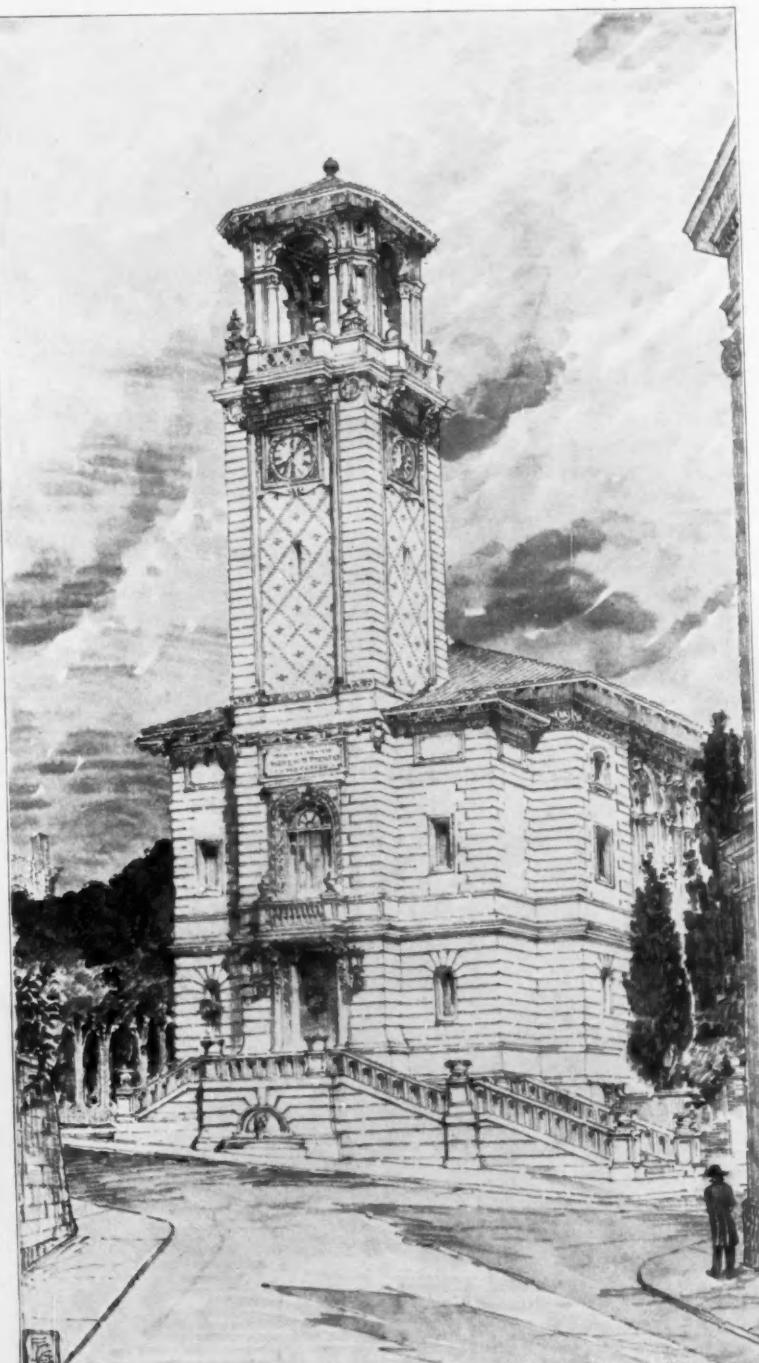
ing designs particularly fitted for the various sections of the United States.

The principal hall in this building would probably be used as a place for certain public entertainments, theatrical and social, but no provision is made for county courts or library. Other departments are included at the discretion of the contributor.

The materials are to be, so far as the exterior is concerned, burnt clay in some of its forms, and the same materials may enter into the interior construction and decoration of the building, at the discretion of the contributor.

The cost of the building, exclusive of furnishings, should not exceed \$50,000. This sum, while perhaps large, is purposefully made so with the idea of laying stress on the necessity of having a building of some richness to represent the town in its corporate capacity.

The idea is simply to suggest an appropriate treatment of a problem that frequently occurs for solution.



A TOWN HALL FOR CENTRAL MISSOURI.

THE BRICKBUILDER.

lar structures, the public, business and residence buildings of the community being transferred to the plateau.

The advent of the railways on the north bank (made possible by the construction of a government levee or embankment) necessitated the building of a bridge and opened to manufacturing and commercial industries a practically unlimited opportunity for expansion, while the superior situation of the old town on elevated ground secures for it the more attractive elements of municipal life.

The public buildings, very fortunately, have been grouped around DeSoto Park, a small square bounded by the four principal streets, and the lot selected for the new town hall occupies a commanding position at the head of Bridge Street and on the corners of Prentice Avenue and Main and DeSoto Streets.

This room, with its accessories, occupies the second floor, and as this apartment gives its name to the whole structure, its level has been treated as the "*belle étage*" giving an abundance of light and ventilation through the large windows of the arcade.

The entire structure above the granite base course will be constructed of brick and terra-cotta, the interior walls of the corridors and assembly hall being of the same material, treated in glazes and color. The ceilings throughout will be built in the Guastavino method, and the roofs will be of tile.

The opportunities for a delightful color scheme, both inside and out, are sufficiently obvious to the educated eye, and within the limitations of black and white reproductions, and without the pen of a Ruskin, the author declines to commit himself.



SECTION, A TOWN HALL FOR CENTRAL MISSOURI.

The following description of the design will be made as brief as possible, the reader being referred to the drawings for all detail of arrangement.

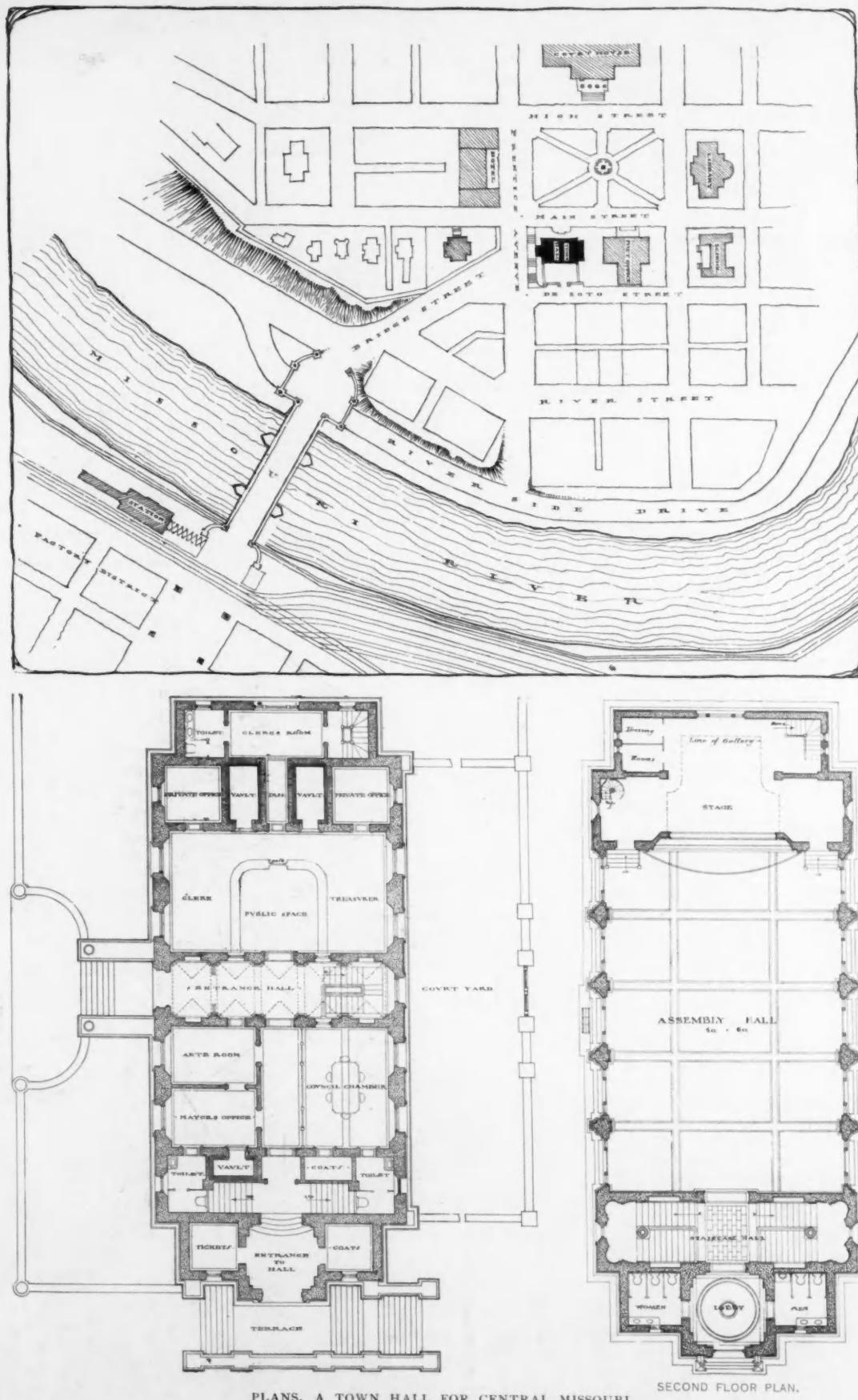
The building is to be two stories on the Main street frontage, and, owing to the slope of the ground, three stories are obtained on DeSoto Street.

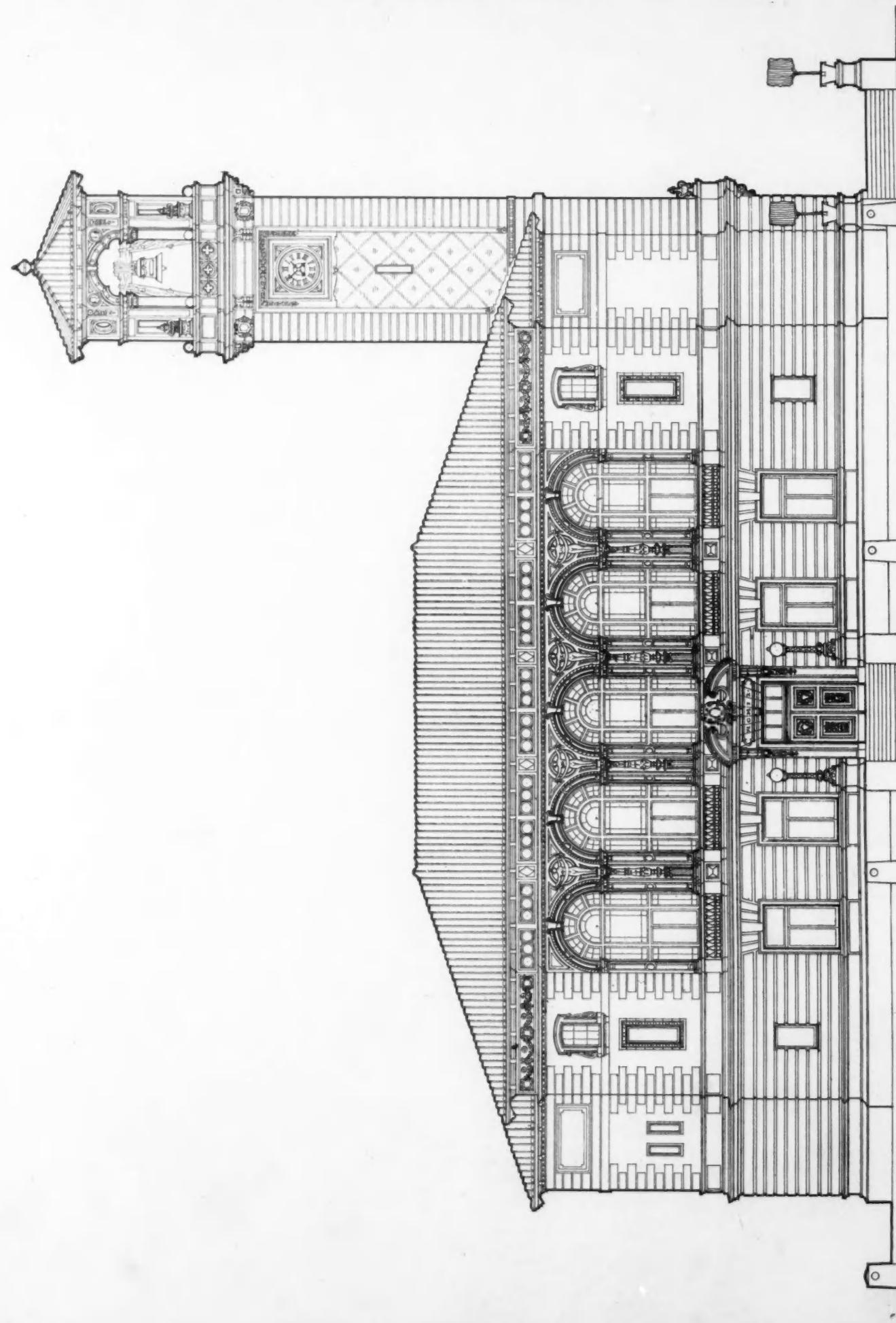
The departments housed in the lower level are approached through a walled fore-court and are as follows: marshal's office, police cells, police court room and entrance to a private staircase giving access to the stage and dressing rooms of the assembly hall two stories above.

The main floor contains the usual town offices, mayor's rooms, and council chamber, reached by a public corridor on the north and south axis, while the entire frontage on Prentice Avenue is devoted to the entrance and staircase to the assembly hall.

A study of the foregoing conditions will, I hope, justify the solution of the problem here presented, and in this hope I submit myself to the tender mercies of that most intelligent body of critics, the readers of THE BRICKBUILDER.

The Department of Architecture of the Lawrence Scientific School, Harvard University, following the example set by other similar institutions, publishes a pamphlet showing samples of students' work, together with a synopsis of the course of study and the work required. The pamphlet also contains an interesting description of the new building erected from the plans of McKim, Mead & White with funds donated by Mr. and Mrs. Nelson Robinson of New York. The examples of students' work are all that could be expected of a department so richly endowed and wisely directed as is this school.





A TOWN HALL FOR CENTRAL MISSOURI.
EDWARD G. GARDEN, Architect.

ELEVATION.

Robbia Pavements. I.

BY ALLAN MARQUAND.

TWO facts are generally known concerning Robbia pavements: (1) that Luca della Robbia made a pavement for the "Scrittoio" of Piero de' Medici in the Medici palace at Florence; and (2) that Luca della Robbia the younger made pavements for the Vatican under the direction of Raphael. The Florentine pavement has completely vanished, and of the Vatican pavements only a few fragments remain. Hence those who concern themselves with the products of the Robbia school have been content to record the above-mentioned facts derived from Vasari, and make no mention of the Robbia pavements which still exist. In endeavoring to acquire some knowledge of this branch of Robbia work, we shall refer to these existing pavements as well as to the sculptural monuments which in their decoration show similar designs.

LUCA DELLA ROBBIA
(1400-1482).

We can point to no existing pavement by the founder of the school, but there are several designs used by Luca in other applications which his successors employed for pavements. A design well adapted for pavements may be seen upon the background of a Madonna recently removed to the Museo Nazionale from the Galleria di Santa Maria Nuova, Florence. It consists of a connected series of circles enclosing quatrefoils. A finer development of this design occurs in the background of the Madonna on the exterior of Or San Michele. In his coffered ceilings at Impruneta, Luca uses a circular design inscribed within a square and emphasizes by an independent ornament the angles of the squares. At San Miniato the angles of the square compartments are modified so as to produce what Vasari admired as a most charming distribution of octagons. Such geometric devices are frequently employed in pavements as a framework to break the monotony of a mere repetition of conventional floral design.

We find again in the ceiling of the Portogallo Chapel at San Miniato a design which reappears in several Robbia pavements. Here square tiles imitate a mosaic colored and arranged so as to appear like a network of cubes. As a frame for the medallions of the same chapel he uses a reticulated fish-scale ornament (Fig. 1). Luca's Tabernacle at Peretola, his Tabernacle of the Holy Cross at Impruneta, the medallion of the Stone Masons on the exterior of Or San Michele, and the ex-

quisite frame of Bishop Federighi's tomb at Santa Trinità furnish still further examples of designs which he might have modified for use in the borders of pavements.

ANDREA DELLA ROBBIA (1435-1525).

In the Collegiata at Empoli there is a chapel which contains a noteworthy statue of Saint Sebastian by Antonio Rossellino. Overhead is a tondo or circular medallion in glazed terra-cotta representing God the Father. On the sides of the statue are painted angels, attributed to Botticelli, and below it a predella assigned to Ghirlandaio. The medallion bears every indication of being an early work of Andrea della Robbia, made at a time when he was strongly under the influence of his uncle. At the foot of the altar is a pavement measuring

2.40 x 1.53 m., of which a portion is reproduced (Fig. 2).

The central part consists of hexagonal tiles exhibiting rosettes surrounded by a leaf pattern. Both the rosettes and the leaves remind us of the predella of Luca's Tabernacle at Peretola. The borders on each side represent a network of cubes, a design similar to that which Luca made for the vault of the Portogallo Chapel at San Miniato. The front border exhibits a narrow fringe-like design and a wider band of opposing palmettes and poppies. This border is not far removed in pattern from the friezes of Andrea's celebrated altarpieces at the Osservanza near Siena, at La Verna and Gradara Rocca. But the border as a whole is not very happily applied. It does not seem to have been originally designed for its present situation. Possibly Andrea adopted the very

patterns which Luca used in the Medici palace and applied them here somewhat incongruously. That Andrea did not concern himself to invent the patterns of these tiles seems probable when we find him using essentially the same design on other occasions. Before a baptismal font set in a niche very beautifully decorated by him in the Pieve at Santa Fiora, are tiles of the Empoli pattern. Similar tiles are employed in a pavement before the altar of the Church of the Madonna della Neve at Santa Fiora, and in a pavement once in the Cappella Santa Fina at San Gemignano, now in the Museo della Biblioteca of the same city.

From the workshop of Andrea appear to have emanated the glazed terra-cottas in the Collegiata at Montevarchi. Here is also a tile pavement, the pattern of which is but a slight modification of that at Empoli. Essentially the same pattern is used also for the background



FIG. 1. FROM LUCA DELLA ROBBIA'S CEILING OF THE PORTOGALLO CHAPEL AT SAN MINIATO.

of a niche containing the statue of Saint Peter Martyr in the Church of San Domenico at Arezzo.

In all these cases blue and yellow and green and violet are the colors used for the rosette and leaf pattern, also for the palmette and the fringe-like borders. The design is painted against a white ground. In the network of cubes at Empoli, Andrea used green, yellow and violet, the colors employed by Luca for the same pattern in the Portogallo Chapel. Elsewhere he sometimes varies the selection of colors.

If we should examine the monuments left us by Andrea della Robbia, we find that he used the reticulated cube ornament in other applications, — for wall decoration and for the predellas of altarpieces. And in these

school. It consists of the so-called nail-head pattern, constructed here by dividing squares by means of their diagonals into four equal triangles colored respectively blue, green, yellow and violet (Fig. 3).

Many more pavements than the few we have mentioned may have been furnished by the atelier of Andrea. Under the constant wear to which they would be subjected in Italian churches and palaces, it would not take many centuries to remove the glaze and obliterate the design.

THE SONS OF ANDREA DELLA ROBBIA.

Of the seven or eight sons of Andrea della Robbia, at least five are known to have produced works in

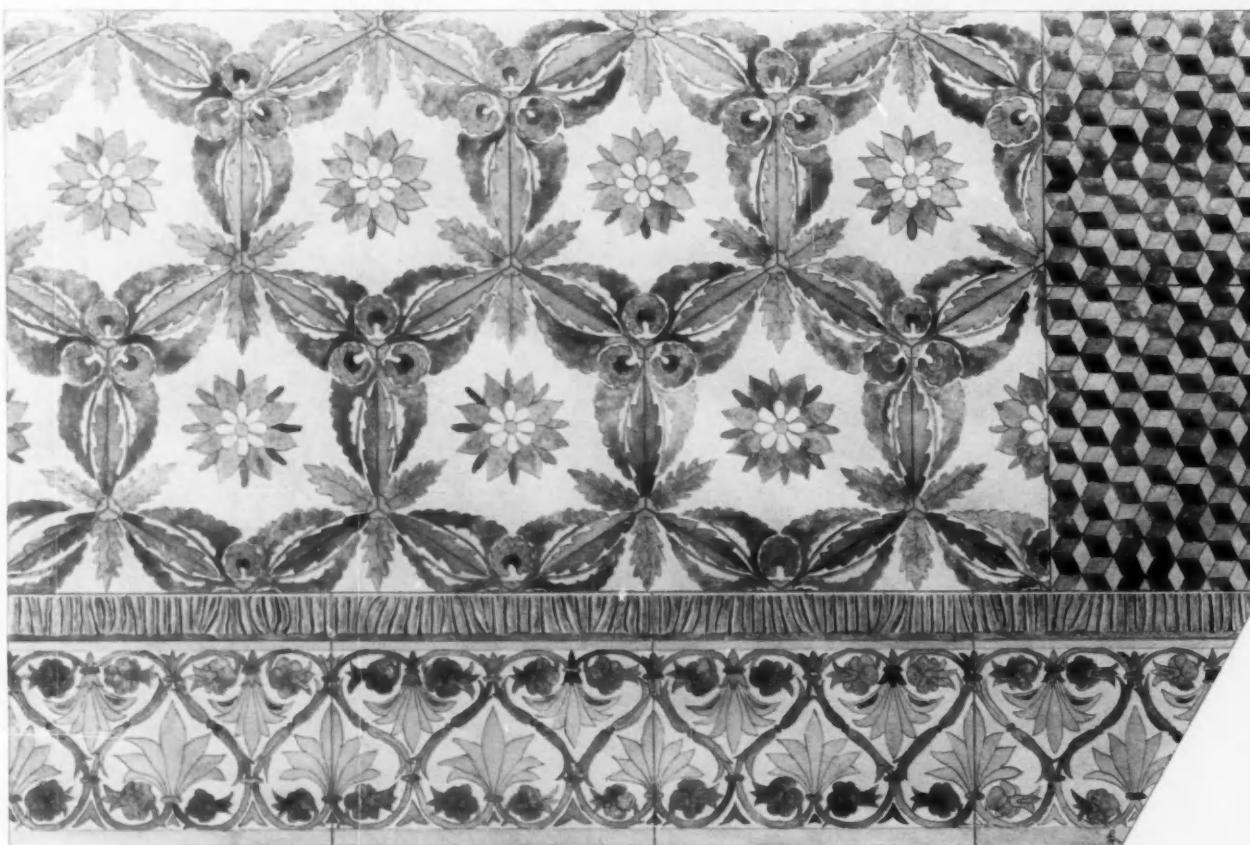


FIG. 2. FROM ANDREA DELLA ROBBIA'S PAVEMENT IN THE COLLEGIATA AT EMPOLI.

other applications we find another design well suited for pavements. This design is seen in Figure 3. It consists of a reticulated series of circles applied to a series of squares, each circle having as its radius one half the diagonal of the square. In the center of each square appears a disk surrounded by smaller disks or ovals. Andrea used this design for part of the wall-surface back of the font at Santa Fiora and upon the predellas of altarpieces at Arezzo, Foiano and Montepulciano. He passed it on to his son Giovanni, who used it in his celebrated lavabo at Santa Maria Novella in Florence.

Compared with the pattern of the Empoli tiles, this is more geometric and conventional. Behind the font at Santa Fiora we find still another design worthy of notice because it became part of the inheritance of the Robbia

glazed terra-cotta. These are Giovanni, Girolamo, Fra Ambrogio, Fra Mattia and Luca. From the tile patterns which decorate the recesses of Giovanni's lavabo in Santa Maria Novella, we see that in 1497 he used the nail-head and the reticulated squares and circles, designs which Andrea had employed at Santa Fiora. He also uses the fish-scale ornament which Luca had employed at San Miniato and a simple quatrefoil, which may be considered a simplification of one of Luca's designs. The central decoration of the wall behind the lavabo, however, seems more original. Here the square tiles have what appear to be green leaves covering their edges, while in their centers the design suggests a pin-wheel.

A few years ago I saw in a shop in Paris (M. Löwendard's) a Madonna and Child by Giovanni, dated 1523, in

which the background imitated a curtain, the pattern on which reminded me of the central tiles in the Empoli pavement.

Giovanni's designs, as well as his sculpture, were cruder than those of his father, and we have no reason to believe that his pavements proved an exception to the rule.

Girolamo's works are still an unknown quantity. He may have made many of the works which still survive in Italy, but it is hazardous even to attempt to identify these from the few fragments which remain of his work in France. At the Musée de Sèvres and at a restaurant

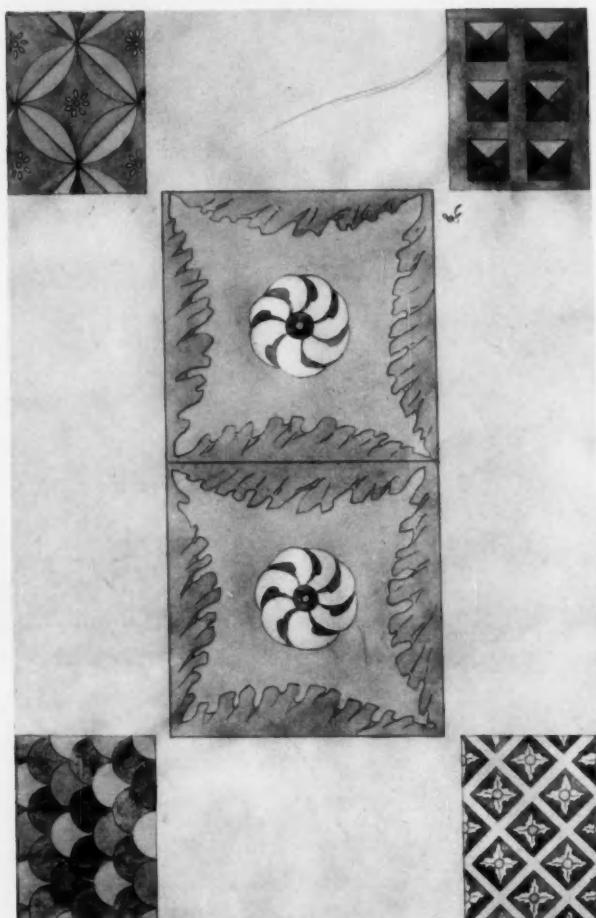


FIG. 3. FROM GIOVANNI DELLA ROBBIA'S LAVABO IN SANTA MARIA NOVELLA.

near the Bois de Boulogne are fragments of tiles said to have been saved from the Château de Madrid. The designs are here partly architectural, and amongst them we note a few, such as rosettes and nail-heads and braided ornaments, which appear to be part of the Robbia repertoire.

Too little is known of Fra Ambrogio or of Fra Mattia for us to venture even to guess what kind of pavements they may have made. More, however, may be learned concerning the work of Andrea's son, Luca. His connection with Raphael lends such an interest to his pavement that we may well consider his achievements in a subsequent article.

Fire-proofing.

The Conflagration at Paterson, N. J., February 8 and 9, 1902.

PATERSON, N. J.; Paterson the prosperous; Paterson the careless city, like Belshazzar, "praised the gods of gold and of silver and of brass, of iron, of wood and of stone," content in her fancied security; but also of Paterson, as of Belshazzar, in the same hour was written in letters of fire with fingers of flame the message, "*Mcne, Mcne, Tekel, Upharsin*," "Thou are weighed in the balances, and art found wanting."

Paterson the city with no rigid "fire limits," where the permit to erect a frame addition to an existing building was to be had almost for the asking, has paid the price



PATERSON SAVINGS INSTITUTION AFTER THE FIRE.

of her good-natured folly, and the reckoning of the cost is now going on.

Paterson, like a great many other American towns whose growth has been rapid but whose legal restraints have not kept pace with its growth, suffers, through the devastation of a conflagration, the penalty of temporizing, which could have been avoided by radical action and legislation.

The condition that Paterson was in previous to the fire is the condition that many towns in these United States are in to-day; and while in fancied security they trust to luck and the fire department, yet sometimes the "bluff" is called, and luck and the fire department are not sufficient to avoid the consequences of the lack of other resources.

In the fire which began on Saturday night, February 8, in a frame shed or car barn and swept over the business sections of the city, fanned by a forty-miles-an-hour gale, the city offered up a sacrifice of about \$4,500,000 in the form of two hundred buildings covering an area of thirty acres and on which the insurance is approximately \$2,500,000. The difference, or the uninsured part of this

THE BRICKBUILDER.

loss, or \$2,000,000, the people of Paterson will have to bear, together with the loss of business and time in the interim of rebuilding. The \$2,500,000, or the part covered by insurance, the people of other parts of the country will have to make good in the form of increased premiums on their property; or because Paterson, like many other towns of similar character, chose to indulge in folly, the other parts of the country will have to pay the reckoning, for this is simply what it comes to in the end. The insurance companies act merely as clearing houses; they do not make money themselves, but merely collect it in one place and pay it out at another. It may also be observed that the insurance companies are not wise and that they do not favor or insist upon the proper construction of buildings, and as a result of their lack of wisdom the burden is laid upon the shoulders of the innocent as well as the guilty.

Looked at in its broad relation to all the country, the fire at Paterson is a monument—evanescent though it will be—to the folly of the people, the legislative government and the insurance companies; or let us reverse the order and put the insurance companies first. Had they refused to insure property in this section or in any section similarly situated, legislative action would undoubtedly have followed, and then the citizens would have realized the hazardous position they were in; but in the competition of insurance agents for business almost any risk is insurable, and people blind to their danger rest in fancied security.

When the truth of the interrelation of all commercial affairs is better understood and the value of true economy is appreciated in all departments of life, then intelligent business managers will select their insurance companies with the same degree of care that is given to the selection of their banking houses. Then insurance companies which insure poorly constructed buildings or buildings situated in localities menaced by poorly constructed buildings will be shunned for the same reason that banking houses are shunned when they are known to make loans on doubtful security.

The manufacturers' mutual insurance companies save themselves great losses and keep the cost of insurance at a minimum by declining to insure any building or plant in which the fire hazard is great, and as a consequence these companies are *sought* instead of their having to

seek business, and their business is made up from subscribers who become mutually obligated for the losses; consequently losses seldom occur, and no reasonable precaution is neglected to prevent fire. Buildings insurable in these companies are designed to offer the least encouragement to fire, and apparatus and appliances are provided that automatically quench it in its incipient stages if it does break out; and while it is not to be recommended or suggested that buildings in cities should be built as isolated factories are built, on the "slow-burning construction" plan, yet the general policy should be followed as to permissible risks.

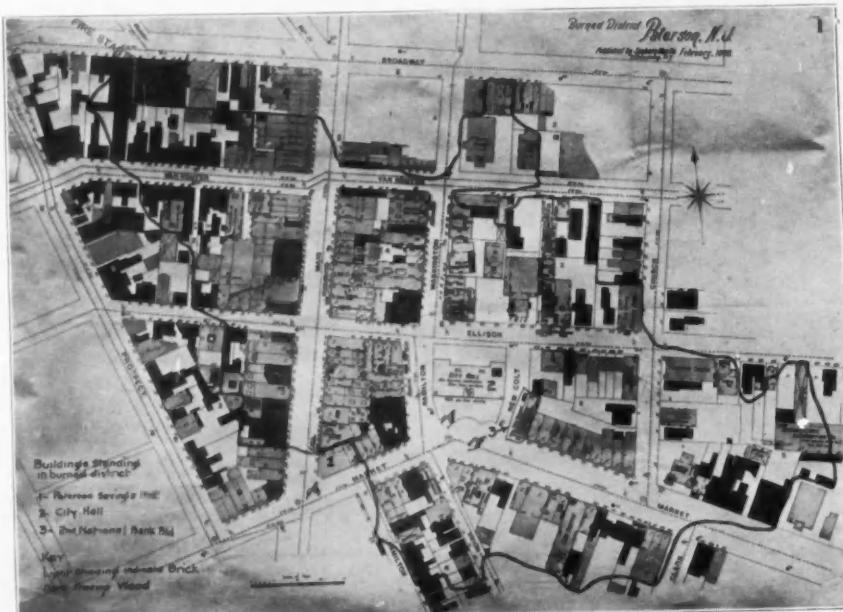
In view of this illustration no argument is needed to show that the policy of the "line" insurance companies actually encourages poor and inflammable construction, and therefore outside of intelligent, far-reaching and radical legislation no improvement in the conditions which prevail in the cities need be looked for until the "line" insurance companies change their business policy and

offer inducements in the way of low premiums on fire-proof and non-combustible buildings.

If legislation could be enacted making any losses caused by fires of external origin recoverable by suit against the owner or occupant of the building in which the fire originated, there would be fewer fires, and the value of money and the products of labor which annually go up in smoke

could be devoted to other useful purposes, and insurance companies which are founded on the principle of making one man pay for the losses caused by the carelessness of his neighbor would soon go out of business.

If it should be argued that when a city or town improves the quality of its buildings around or adjacent to old districts or buildings which offer opportunities for destructive fires, nothing can be done to compel unwilling owners to improve their properties and thereby lessen the fire hazards, the answer is, that it is within the powers of the Commonwealth, under proper legislation, to tax these buildings in proportion to the risk to which they subject the adjacent properties or the town, or by condemnation proceedings remove the menace. If the test of proper legislation is the measure of the greatest good for the greatest number, then under the most radical legislation on the subject the individual hardship and loss resulting would be trifling compared with the loss and destruction to which a community is subjected by a con-



MAP OF BURNED DISTRICT, PATERSON, N. J.

flagration. The American policy of maintaining paid fire departments in cities and trusting to the fire departments to keep the possible destruction within narrow limits is a wrong one and is responsible for the many poor buildings and a great deal of waste. If the cost of the fire department were kept separate, as it equitably should be, and not combined in the general budget for city maintenance, there would soon be a complaint from the taxpayers that they were being unjustly compelled to pay for the carelessness of others. Also, if each city were

of fire, and while this is true to a certain extent, because the maximum strength of iron is at about 400 degrees Fahr. and the resistance rapidly diminishes as the temperature is raised, yet they lose sight of the fact that though uncovered iron is not fire-proof, yet it is non-combustible, and while wood is capable of some resistance until it is destroyed, yet it carries within itself the elements of its own destruction and is at the same time a menace to materials yet untouched by fire; therefore to argue that wood is a better constructive material than



PORTION OF BURNED DISTRICT, PATERSON, N. J.
CITY HALL IN FOREGROUND. SECOND NATIONAL BANK BUILDING AT RIGHT.

compelled to insure itself or carry its own insurance or stand for its own losses, a great and immediate improvement in the construction of buildings would soon be apparent.

From another point of view the absolute reliance on the efficiency of the fire department can also be shown to be wrong; thus given a strong wind, a combustible section of a town and a fire with a fair start, and the fire department is helpless. The total amount of water that can be thrown by a score of engines on such a fire is in-

iron is absurd, because iron can be covered with a non-conductive covering and insulated against injurious degrees of heat, and thereby become capable of resisting high temperature; but even without covering, a block of buildings of steel and brick without wood joist or floors would stop a fire in a conflagration, and though they suffered, they would not add fuel to the flames. In a business or closely built up section of a town, if all buildings were so constructed, fires of magnitude would be unknown.



PORTION OF BURNED DISTRICT, PATERSON, N. J.
PATERSON SAVINGS INSTITUTION AT LEFT. CITY HALL AT RIGHT.

significant in comparison with the amount of heat generated; and with a conflagration another very potent and irresistible factor enters into the problem, — the "regenerative" effect of the hot air on combustion. In the combustion of wood with an air supply of ordinary temperature 2,500 degrees Fahr. is a high limit, but with a heated air supply very much higher temperatures are not difficult to attain, which few materials are capable of withstanding.

A great many insurance men talk about the superior resistance of wooden girders and columns to iron in case

The specific lessons to be learned from the fire at Paterson are:

First. That ordinary buildings constructed of brick and wood, with or without columns and girders of steel, cannot resist a conflagration or prevent it from spreading.

Second. That a conflagration is liable to occur in any town similarly constructed and at any time when the atmospheric conditions are favorable, and that under these conditions the fire department is impotent.

Third. In order to insure safety the closely built up portions of a town should be constructed entirely of fire-

THE BRICK BUILDER.

proof or non-combustible material, with restrictions as to height of non-combustible buildings; all buildings above a certain minimum height and area being required to be fire-proof and all buildings under this minimum to be of not less than non-combustible construction.

Fourth. Old combustible buildings coming within the fire limits to be taxed in proportion to the risk to which they subject adjacent buildings, or if very dangerous then to be taxed in proportion to the risk of the town; or as a wise precaution, to be subject to condemnation by the municipal authorities.

In the business sections of the burned district of Paterson there are but three buildings standing that were in the direct pathway of the flames and these three buildings are of what is commonly known as "fire-proof construction"; yet they were not strictly "fire-proof"; two of them might be termed "high class non-combustible," and the result of the fire shows certain defects which could have been seen quite as well before the fire made them apparent.

The City Hall is a three story and basement structure with flat roof, with the exterior of the basement faced with granite, and the first, second and third stories faced with Indiana limestone backed with hard red brick. The floors are of hollow tile, some of the floors covered with wood laid on sleepers in concrete; windows and door frames of wood; stairways of Guastavino tile and concrete, with marble facings; partitions of hard red brick. This building is what would be termed strictly "fire-proof," and the defects which the fire developed were due to the non-fire-proof character of the window frames, sash, glass and furniture.

The City Hall stands isolated in the center of a small open space and was in the direct path of the flames. The buildings on three sides of it were completely destroyed. The building on the right as you stand facing it is the Second National Bank and is the only building near it which was not destroyed. The City Hall and the Second National Bank building are two of the three buildings that were left standing in this section of the burnt district.

A careful examination of the City Hall will show that the damage was caused by the ignition of the wooden fixtures and furnishings, and that had the fixtures been of metal or even of fire-proof wood little damage could have resulted to the building. As it was, however, almost every piece of wood in the building was consumed, with the exception of the front door and a few window frames; even the sleepers in the concrete floor were burned up; the flames bursting out the openings disintegrated the stonework around them. In the basement the granite mullions of some of the windows are entirely destroyed. In the upper stories large spalls of limestone are broken off from around the windows, and the stonework is badly scorched and in some places entirely ruined.

The vertical supports of the floors of this building are the outside walls and internal brick partitions carried up from the ground. The outer walls are not damaged, excepting parts of the stone facing previously referred to. The internal brick partition walls are in good shape with one or two exceptions in the thinner partitions where cracks have developed.

The floors of flat arch hollow tile are in good condition excepting where the lower covers of some few of the tiles have fallen off, and even at these points the floor itself is not damaged beyond this and is structurally intact.

The temperature of some of the rooms of this building at the time of the fire is shown by the evidence to have been at least 2,380 degrees Fahr.—the melting point of glass—as the glass lights in the doors were melted and ran down and settled in little pools on the floor. The plaster is off in many places, and the interior of the building has been blackened in almost every part by the flames and smoke.

It is noticeable that the front door is not damaged, nor is the opening around it, which clearly shows that the damage to the building came from the combustion of the wooden fittings and furnishings, and this suggests the thought that had the windows been protected the building would have escaped damage; and while fire shutters are seemingly out of place on a monumental building, yet an efficient substitute for them can be provided in the form of "wire glass" and metal frames and sash for all windows, with metal-covered doors of wood.

To repair this building all the stone facings around the window openings will have to be replaced, the granite base almost entirely renewed, the wood flooring and sleepers replaced, all the window frames and sash replaced, some of the brick partitions will have to be rebuilt, and all of the interior fittings renewed.

Had this building been impervious to the entrance of the hot gas and flames, it would have suffered little if any damage, or had the window frames and sash and the interior fittings been of incombustible material, no great harm could have resulted, even had the glass broken and fallen out. An examination of the photographs will show that the damage which did result from the fire came about through the agency of this building's own defects in the form of wooden fittings.

The Second National Bank building, a seven-story office building, containing banking rooms on the first floor, stood opposite one side of the City Hall.

This building is faced with white marble to the fifth floor, the two other or uppermost stories are in the mansard roof. The floors of this building are Guastavino arches and concrete, with lower flanges of the iron floor beams unprotected. The partitions are hollow tile. The stairway is of Guastavino tile and concrete faced with marble. The roof was covered with slate attached to



UPPER FLOOR, PATERSON SAVINGS INSTITUTION, SHOWING GUASTAVINO TILE DOME AFTER FIRE. WHITE PATCHES SHOW PLASTER ON TILES.

terra-cotta blocks set on iron purlins which in turn were attached to the iron structural work supporting the roof.

This building had two street exposures and two party line exposures. The rear end of the building toward the origin of the fire, containing the elevator and stair well, and also the back of the building, were subjected to a direct attack from fire in adjoining buildings.

The party line exposures of this building have window openings, some of which were protected with fire shutters, while others were not, or the shutters were open. The window openings on the mansard roof had no protection.

The fire entered through the unprotected openings in the walls and roof and burned out all the woodwork on the two upper floors and many of the window frames on the lower stories in the stair and elevator well. The hollow-tile partitions in the two floors on the roof fell down presumably because they were fastened to wood studs at the door openings. The ironwork in the mansard roof was exposed, and some of it is now out of shape as a result of this exposure.

The City Hall sheltered the marble face of this building on one side from the gases and hot air, and therefore no damage was done to the stonework below the mansard roof. In the roof the facings around the dormer windows are scorched and blackened from the fire inside the building.

In the mansard, on the other street front, the facings around the dormer windows are badly scorched. In the interior of the building many of the glazed tiles on the stair well have fallen off, and the stair well and toilet room adjacent are blackened with smoke.

The buildings adjoining this bank building on the side and rear were completely destroyed, as were also the buildings directly opposite to the bank building on the other side of Market Street.

The woodwork of the City Hall directly across a street was also burned out as previously referred to. This bank building then, it will be seen, had fire on four sides of it. Had it not been for the openings on the party wall sides and roof of this building, with the prevailing direction of the wind, it is probable that it would have escaped with but little damage; but even as it was five floors of the building, including the bank, were open for business on Monday morning, February 10.

Had the party wall of brick been carried up to the top of the roof, the building would probably have escaped with slight injury, but with no greater protection to the inside of the rooms in the roof than the two or three inch terra-cotta roof blocks and the slate the temperature must have been very high. Had the terra-cotta partitions been properly secured to the floor and ceilings, with non-combustible door frames and fastenings, the spread of the fire would have been greatly retarded; or had a perforated line of pipe connected to an "underwriters' pump" been at-

tached to the party wall, so that a sheet or curtain of water could have been used to protect this exposure, there would have been but a minimum of damage.

The same criticism regarding wooden frames and sash applied to the City Hall is applicable to the bank building. Another fault of this building is the absence of proper coverings on the lower flanges of the I beams. While in this fire no injury was done to the floors, yet under other conditions the exposed beams might have yielded and serious damage to the building followed.

Summed up, the defects of this building as a high type of fire-proof construction can be said to be:

From external exposure —

First. Openings in party or division walls.

Second. Mansard roof on party line side with openings in roof on this side.

Third. Lack of protection to structural parts of roof.

Fourth. Lack of "water curtain" or horizontal distributing pipes on all exterior walls.

Fifth. Wooden window frames and sash.

From internal exposure —

First. Lack of proper coverings on lower flanges of floor beams.

Second. Wooden interior finish.

Third. Partitions improperly erected with wooden studs around doorways and not properly secured to floor and ceiling.

Fourth. Lack of protection to structural parts of roof.

Fifth. Lack of sufficient water supply for fire protection.

Paterson's Saving Institution, a five story and basement office building with flat roof, with banking rooms on the first floor faced with yellow brick and terra-cotta, is the

third one of the three buildings left standing that were in the pathway of the conflagration. The walls of this building are of brick, the floors of Guastavino tile, with the lower flanges of the floor beams unprotected, the partitions of hollow tile.

This building has two street front exposures and two party line exposures. The buildings adjoining it on the party lines were completely destroyed. This building undoubtedly prevented the fire crossing Market Street at this point.

Had the party line exposures been without openings, or had the openings been protected with fire shutters, this building under the prevailing condition would have escaped without material injury. The fire entered the building from the openings into the stair and elevator hall in the rear party walls on the upper floors, and burned out the woodwork in the fourth and fifth stories and caused the hollow-tile partitions to fall, presumably because they were not properly secured to the floors and ceilings, and also because the door openings were framed with wood studs. The elevator and stair well is blackened with smoke and some of the glazed tile have fallen



HAMILTON, CLUB, SHOWING GALVANIZED IRON CORNICE.

off. On the street fronts the outside brickwork around the windows in the two upper stories is blackened somewhat from the smoke and fire inside the rooms; barring this the building is not damaged and was open for business on the following Monday morning.

Had the partitions in this building been properly erected with non-combustible door frames and well secured to the floor and ceilings the fire could not have spread to any great extent; but this lesson, evident as it is, has not been learned, as the new partitions are again being erected with wood studs at the door openings.

The faults of this building can be summed up:

From external exposure—

First. Opening in party or division walls and exposed light well.

Second. Lack of water curtain.

Third. Wooden window frames and sash.

From internal exposure—

First. Lack of proper covering on lower flanges of floor beams.

Second. Wooden interior finish.

Third. Partitions improperly erected without being properly secured to floor and ceiling and with wood studs around door openings.

Fourth. Lack of sufficient water supply for fire protection.

The Hamilton Club. The shell of the Hamilton Club is standing. The walls are of light-colored terra-cotta and brick, the cornice was galvanized iron, the interior construction was wood joist on iron girders and columns. The roof and third floor are entirely burned out, and parts of the second and first floors destroyed. The iron girders and columns are bent and twisted; the window frames in third story are entirely burned out. The walls of the building are but little damaged. This building being on the edge of the conflagration and separated in a measure from the adjoining buildings on the side toward the fire, therefore escaped total destruction. Had the roof and floors been fire-proof or even non-combustible, under the prevailing conditions it is highly probable that the fire would have "passed by on the other side" without seriously harming it. As it is now, the interior construction will have to be entirely renewed. Had this building been in the direct pathway of the flames it is highly improbable, with its wooden internal construction, that its walls would be standing to-day.

Of course it is easy to "point a moral" after the facts are made apparent by such a calamity as this, but with all the disastrous fires that we have had recently is it not about time to carefully "take account of stock" of the conditions of buildings in our cities? Say the councilmen of our cities organized a "Board of Fire Examiners" with about the same powers as the Board of Health, does any one doubt that hundreds, possibly thousands of places would be found which are a standing menace to the property and the lives of our citizens? Smallpox, scarlet fever, diphtheria, etc., are isolated, quarantined and destroyed by radical municipal action, yet fire traps are permitted to exist without even a protest. When every man realizes that he is required to give an affirmative answer to the question "Am I my brother's keeper?" combustible buildings will give way to non-combustible buildings, and destruction by fire will be regarded as a crime.

Selected Miscellany.

A LESSON FROM THE PATERSON FIRE.

PUBLISHERS OF THE BRICKBUILDER:

Gentlemen, — Being in Paterson shortly after the recent fire which devastated the heart of the business district of that town, I took the opportunity of making a careful study of the fire-proof qualities of the materials that were called upon to withstand the extreme test of the flames. Many of the buildings were of the modern



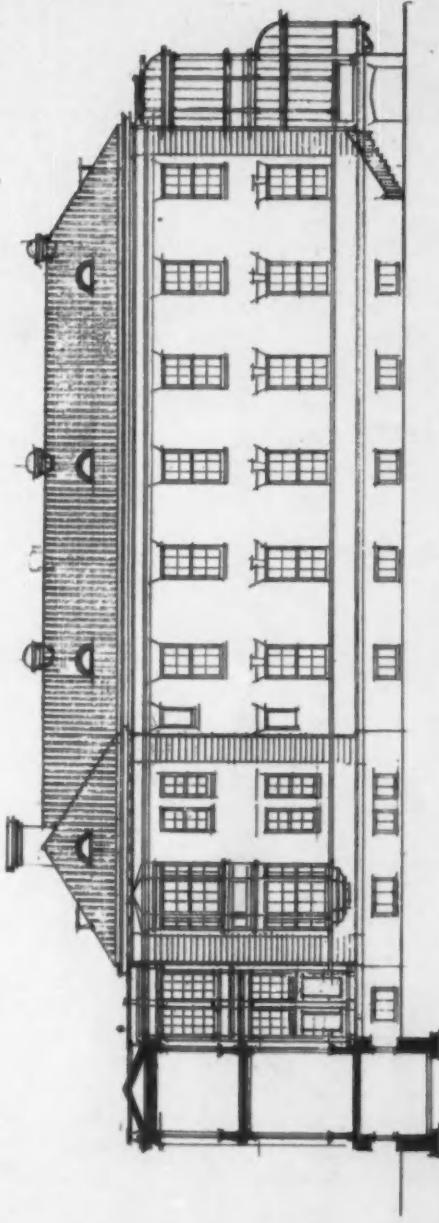
DETAIL BY F. C. SAUER, ARCHITECT.

Conkling-Armstrong Terra-Cotta Company, Makers.

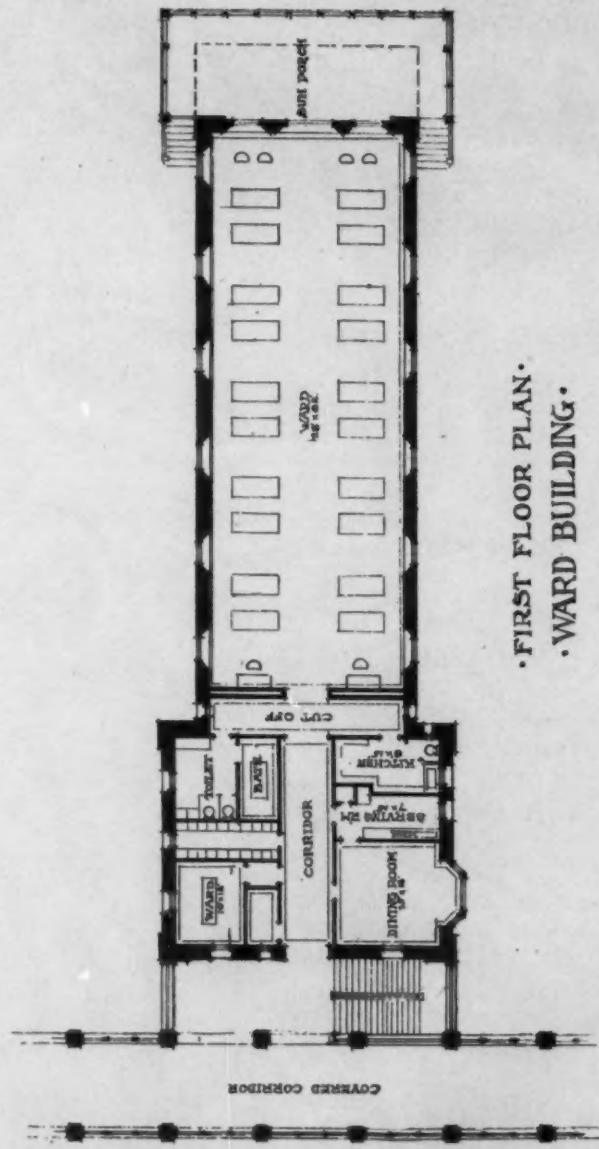
"fire-proof" type, and according to the testimony of eyewitnesses, these stood upright among the flames until they became seething furnaces within, owing to the great amount of inflammable material they contained. When the limit of endurance had been reached the steel frames buckled and fell, heavy steel girders and posts being twisted and knotted like whipcords. But to get down to the ability of the different materials to withstand the flames as evinced by the remains: In wander-



HOUSE, 15 EAST 84TH STREET, NEW YORK CITY.
Built of brick made by the Ohio Mining and Manufacturing Company.
Renwick, Aspinwall & Owen, Architects.

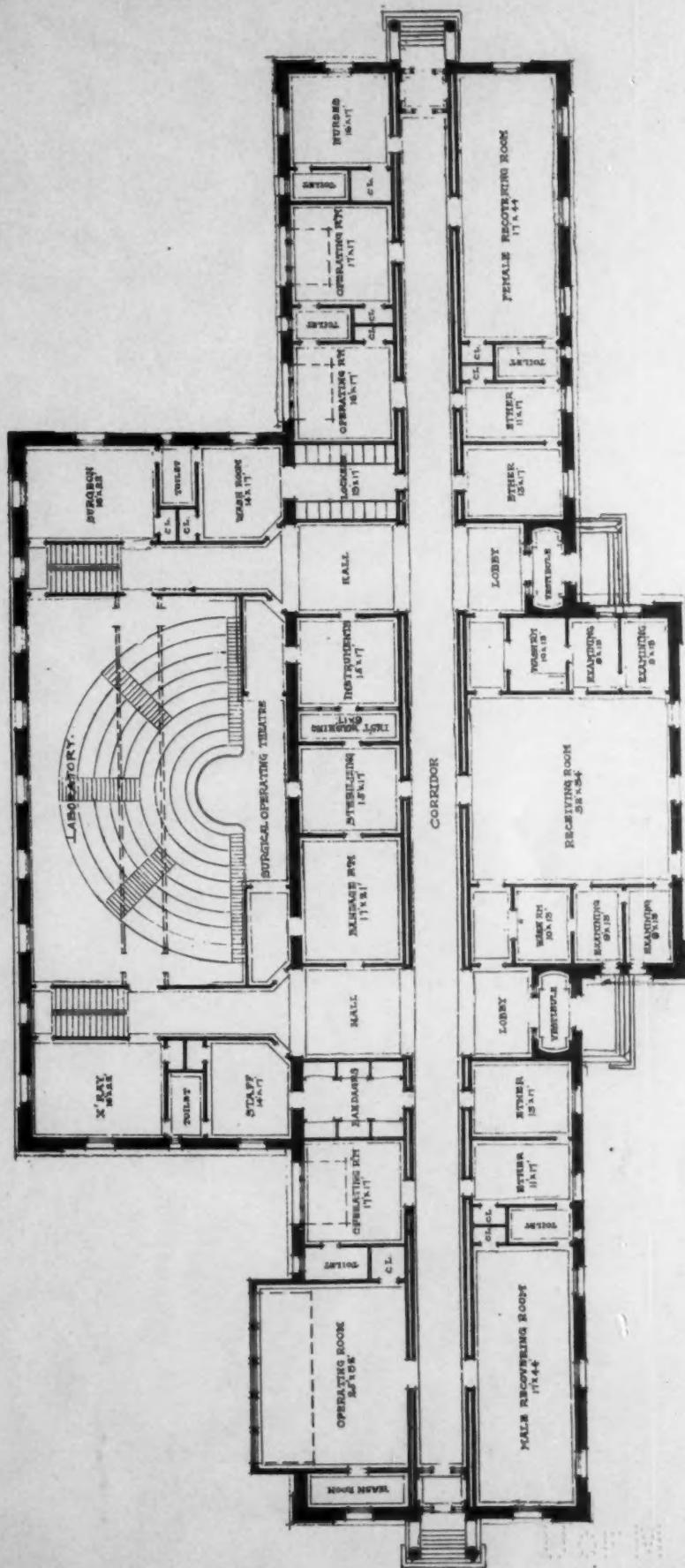
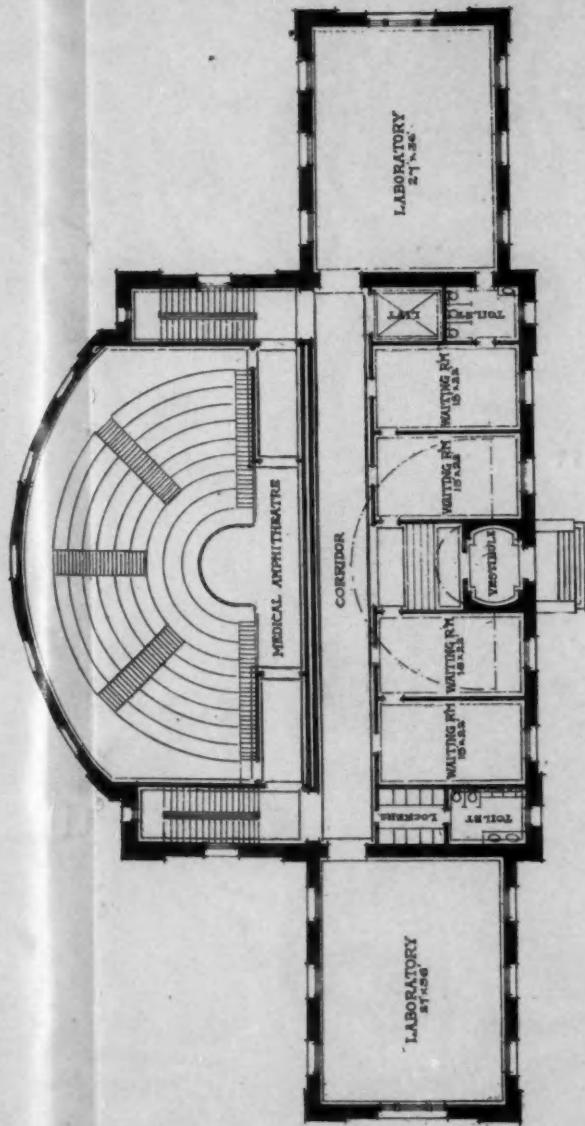


ELEVATION.



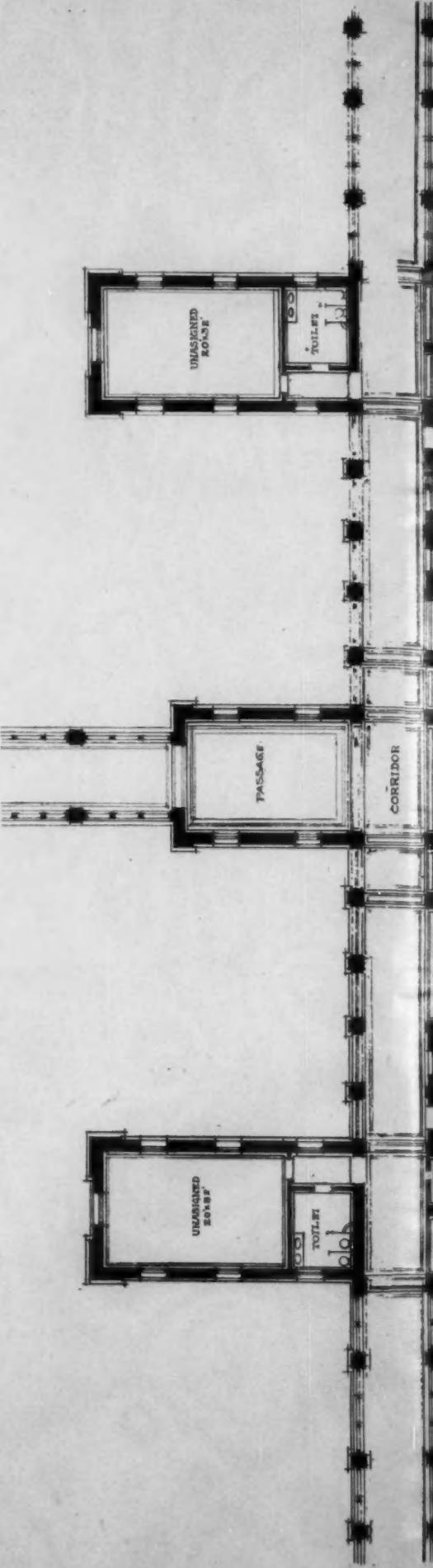
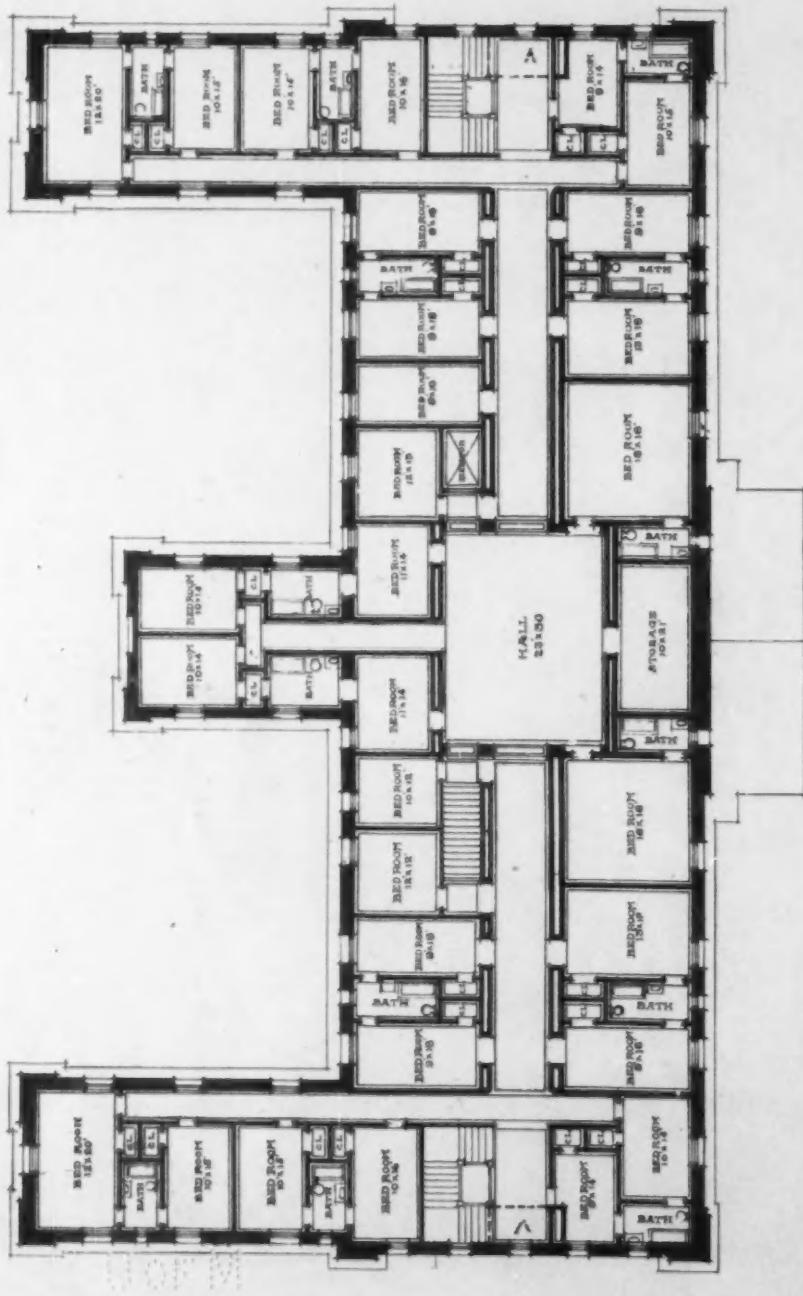
•FIRST FLOOR PLAN.
•WARD BUILDING.

MEDICAL BUILDING

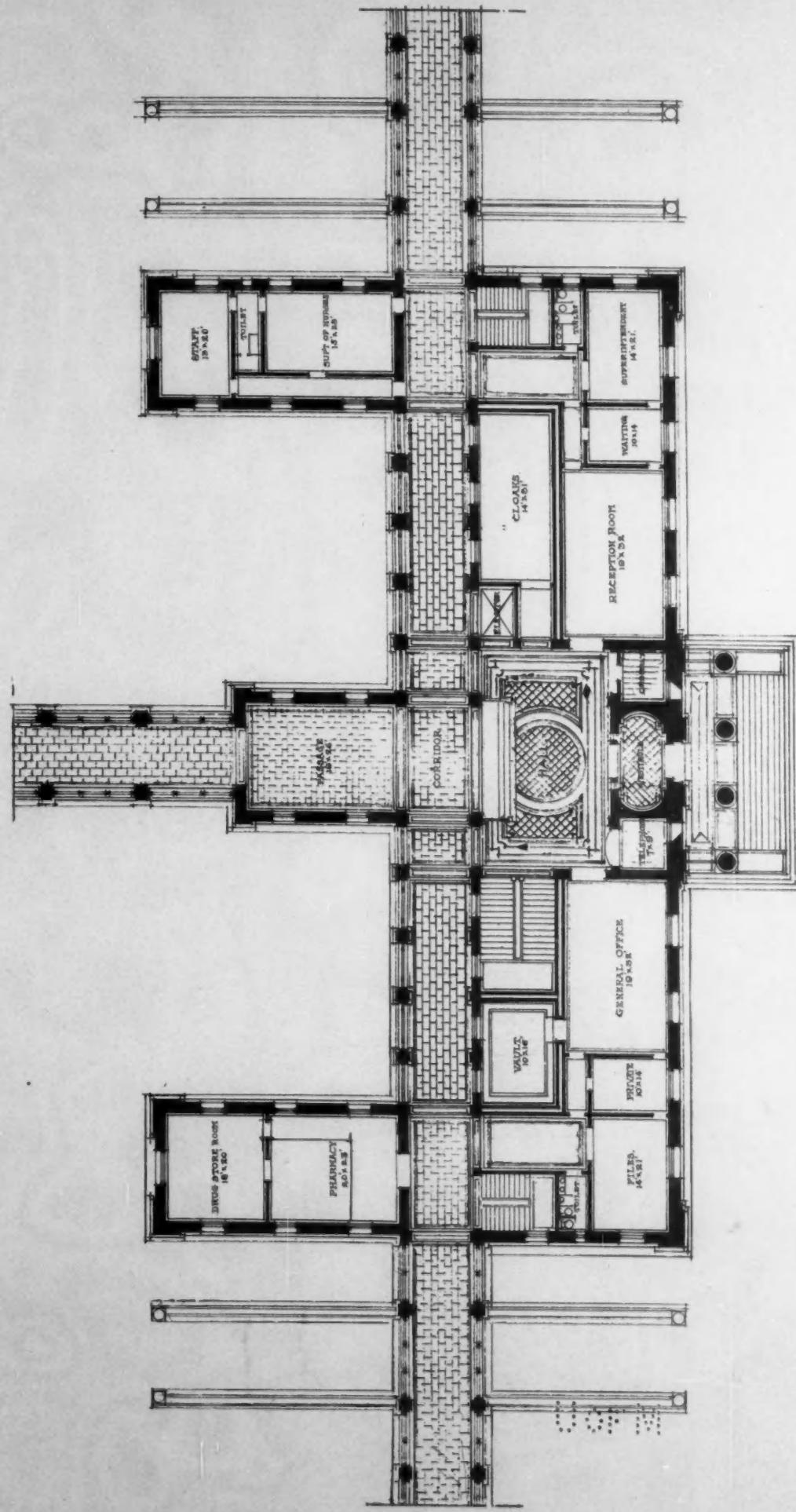


COMPETITIVE DESIGN OF MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA, AT WASHINGTON.
PLAN, SURGICAL BUILDING.
BORING & TILTON, ARCHITECTS.

•THIRD-FLOOR-PLAN:



SECOND-FLOOR-PLAN.



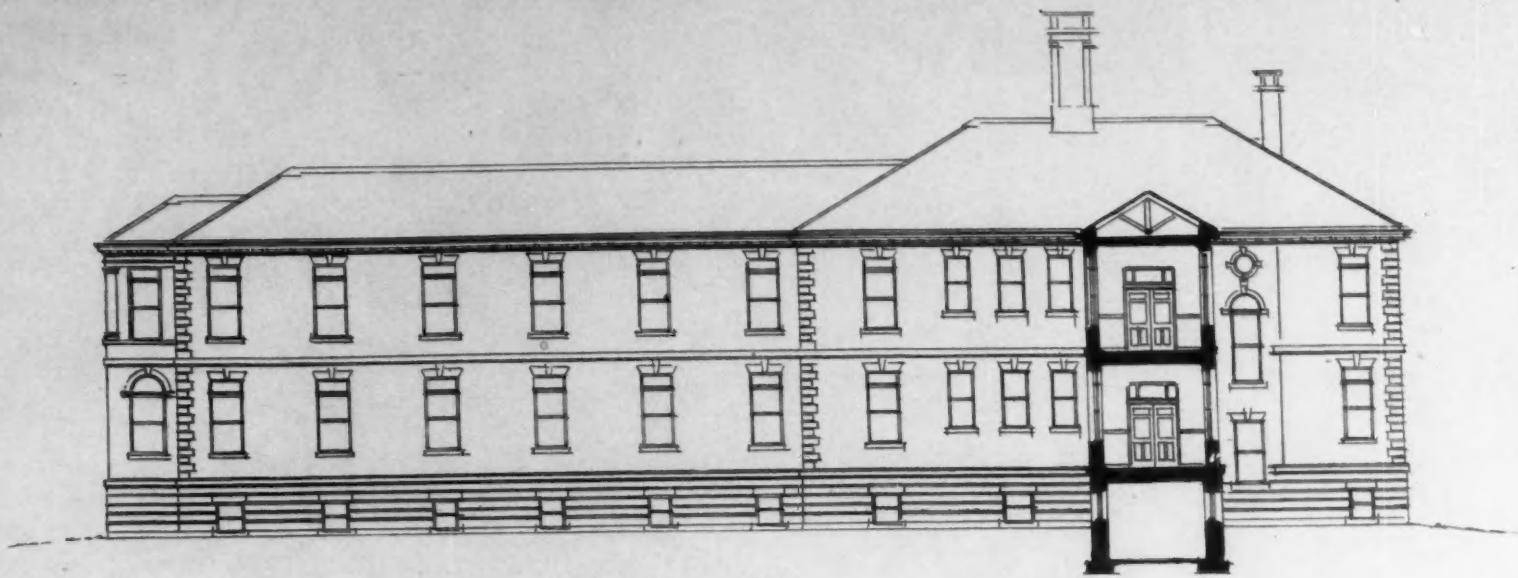
FIRST FLOOR PLAN, ADMINISTRATION BUILDING.
COMPETITIVE DESIGN OF MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA, AT WASHINGTON.
Boring & Tilton, Architects.

34700

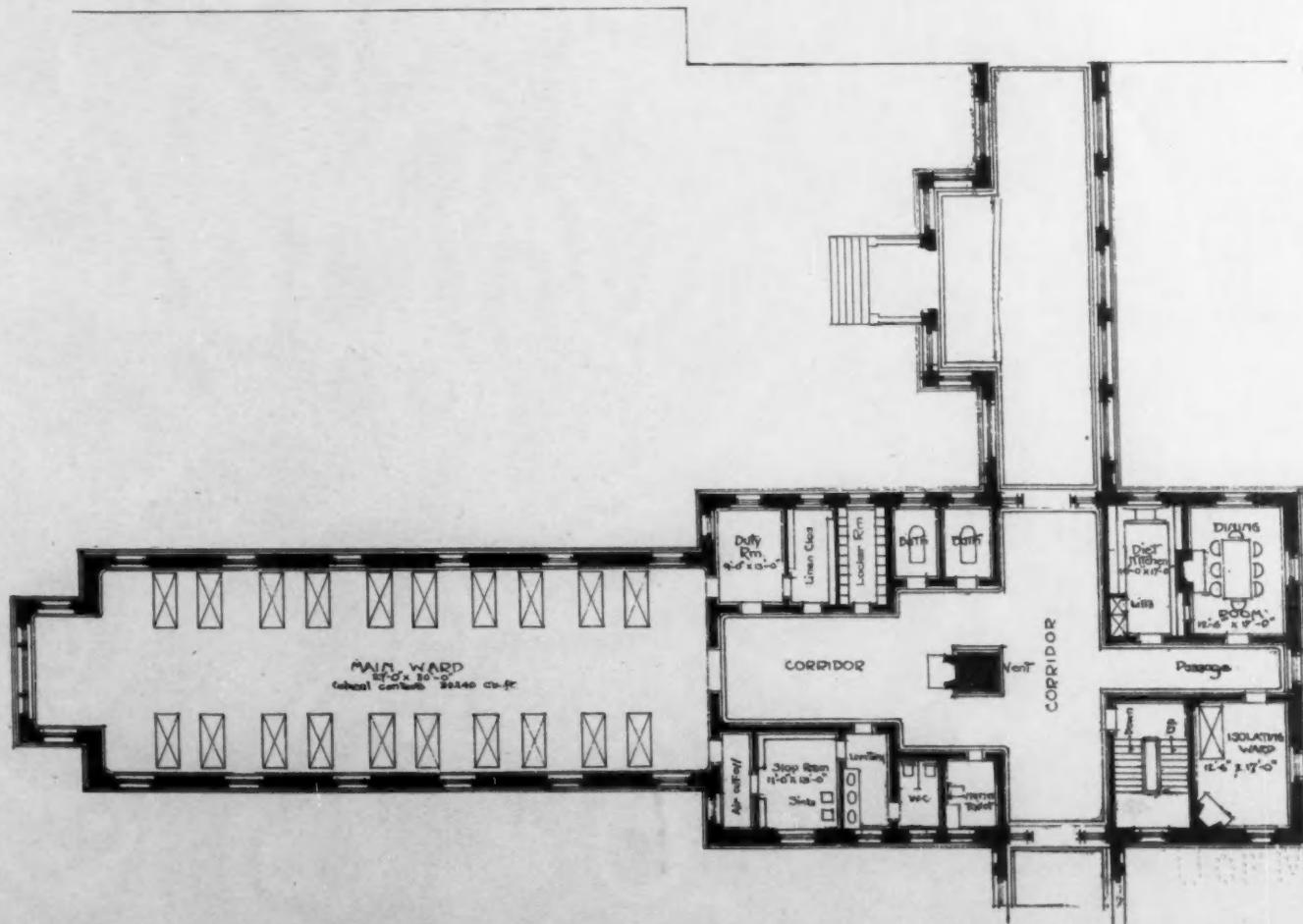
THE BRICKBUILDER.

VOL. 11. NO. 3.

PLATE 19.



ELEVATION

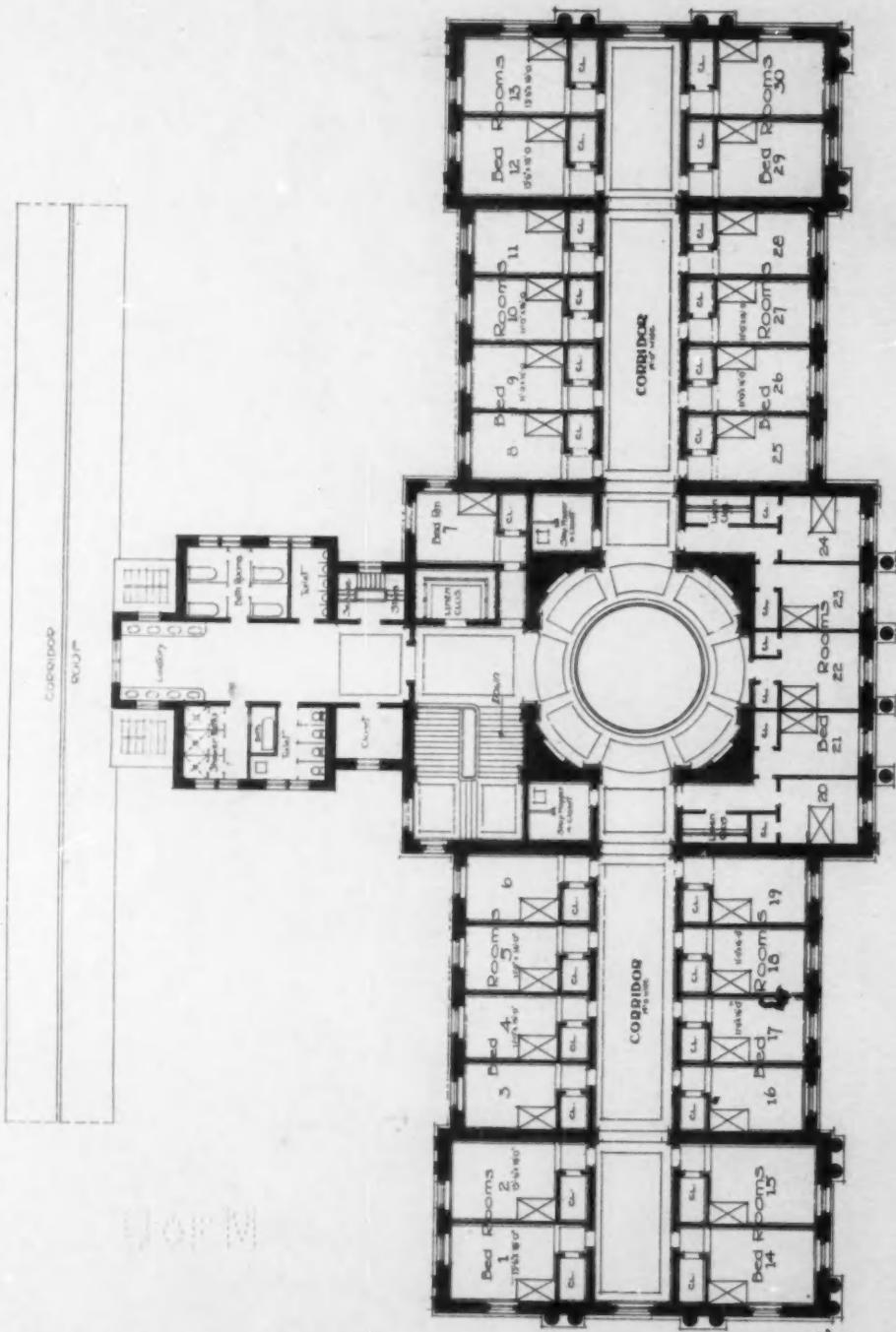


PLAN, TYPICAL WARD BUILDING.

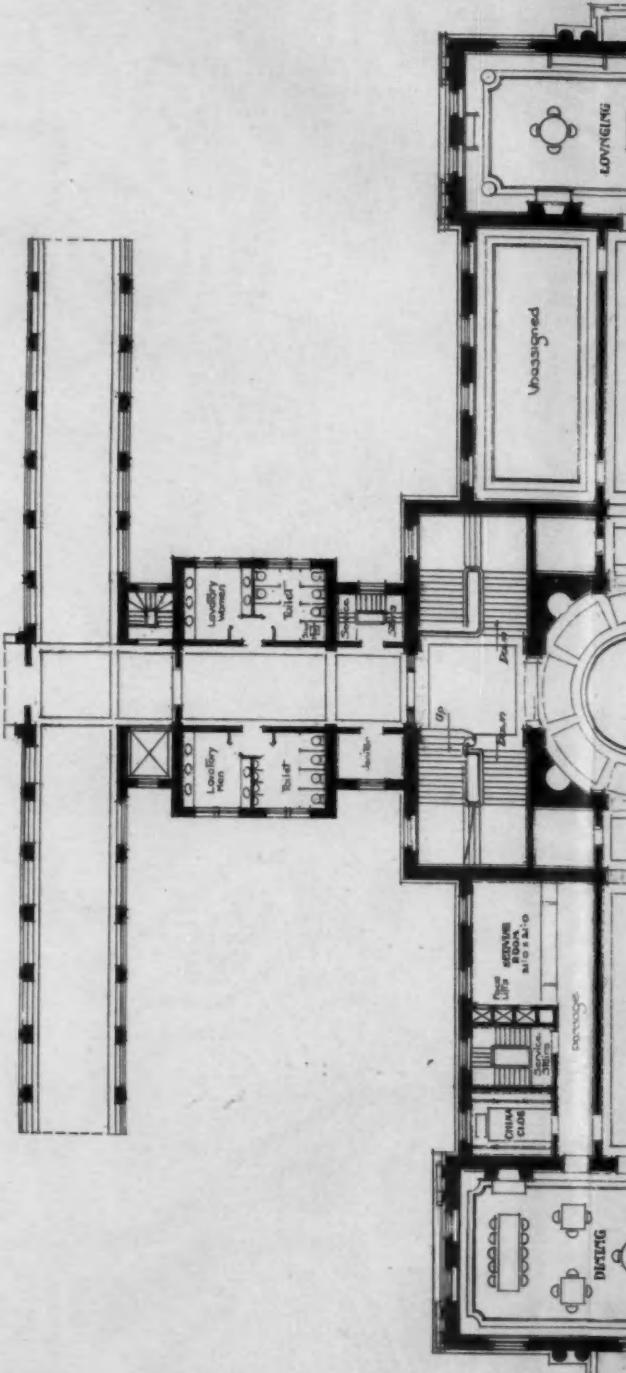
FIRST HONORABLE MENTION.

COMPETITIVE DESIGN OF MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA, AT WASHINGTON.

CHASE & AMES AND LEON E. DESSEZ, ASSOCIATE ARCHITECTS.

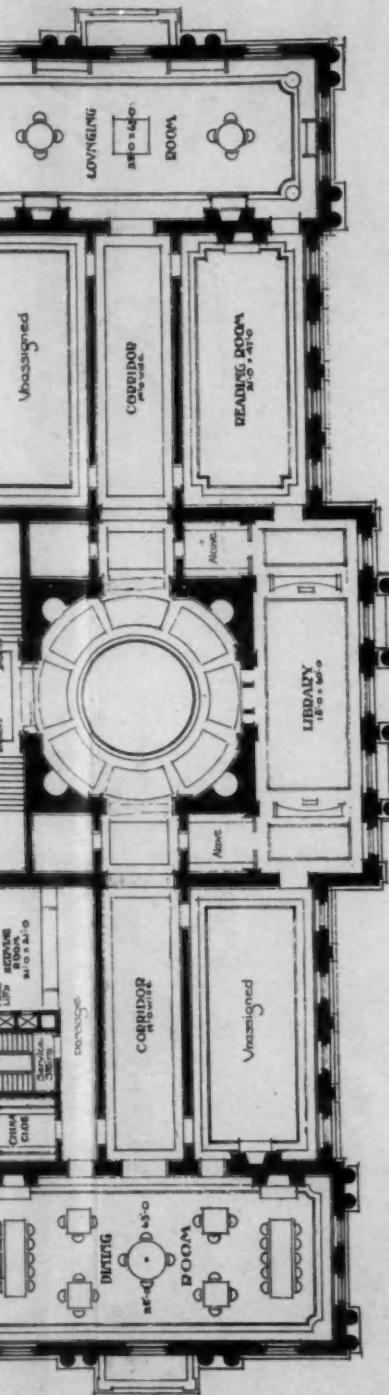


THIRD FLOOR, ADMINISTRATION BUILDING,

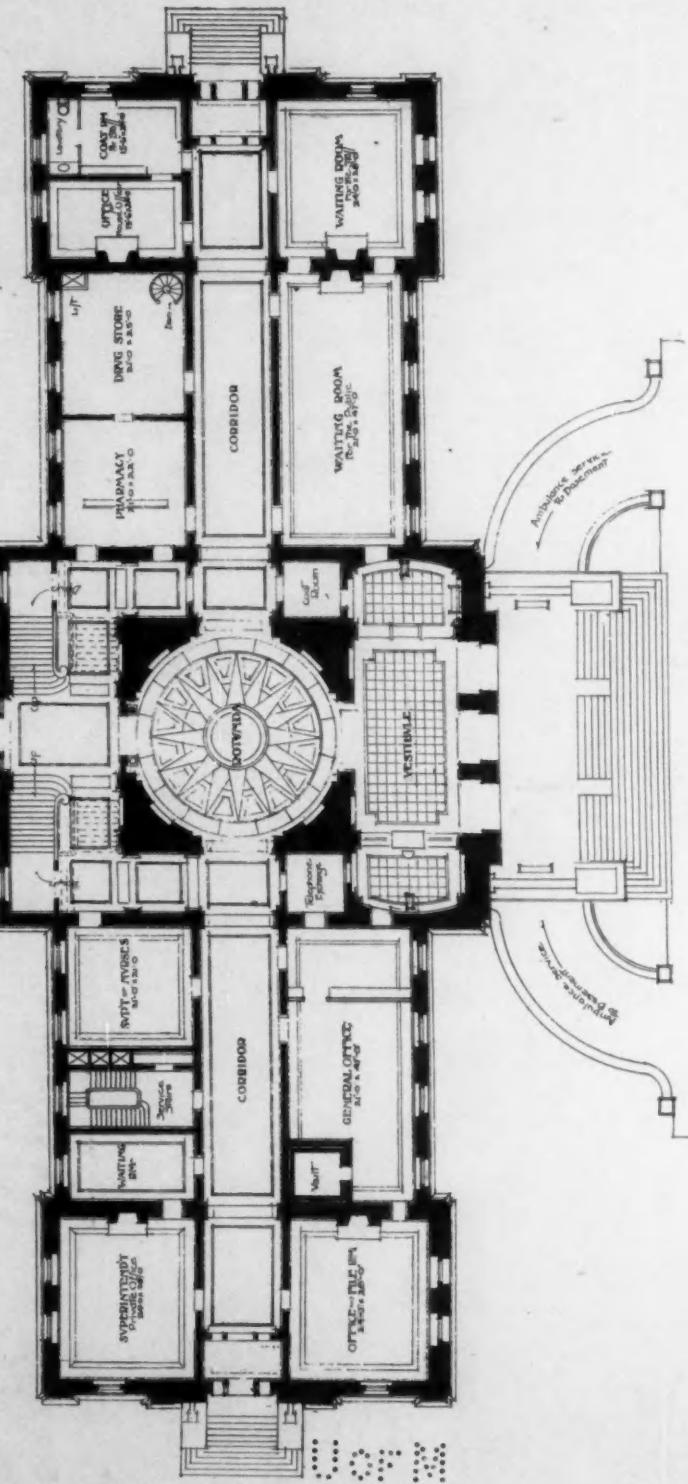
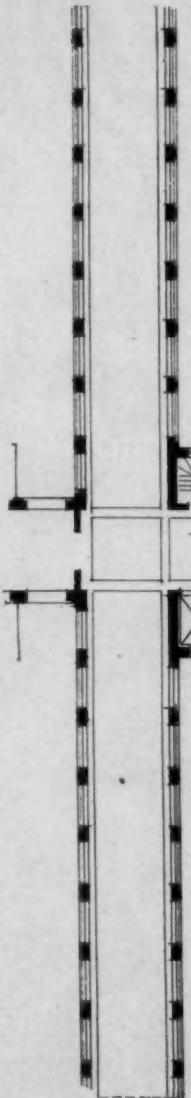


BRICKBUILDER.

PLATES 20 and 21.



SECOND FLOOR, ADMINISTRATION BUILDING.



FIRST FLOOR, ADMINISTRATION BUILDING,
FIRST HONORABLE MENTION.

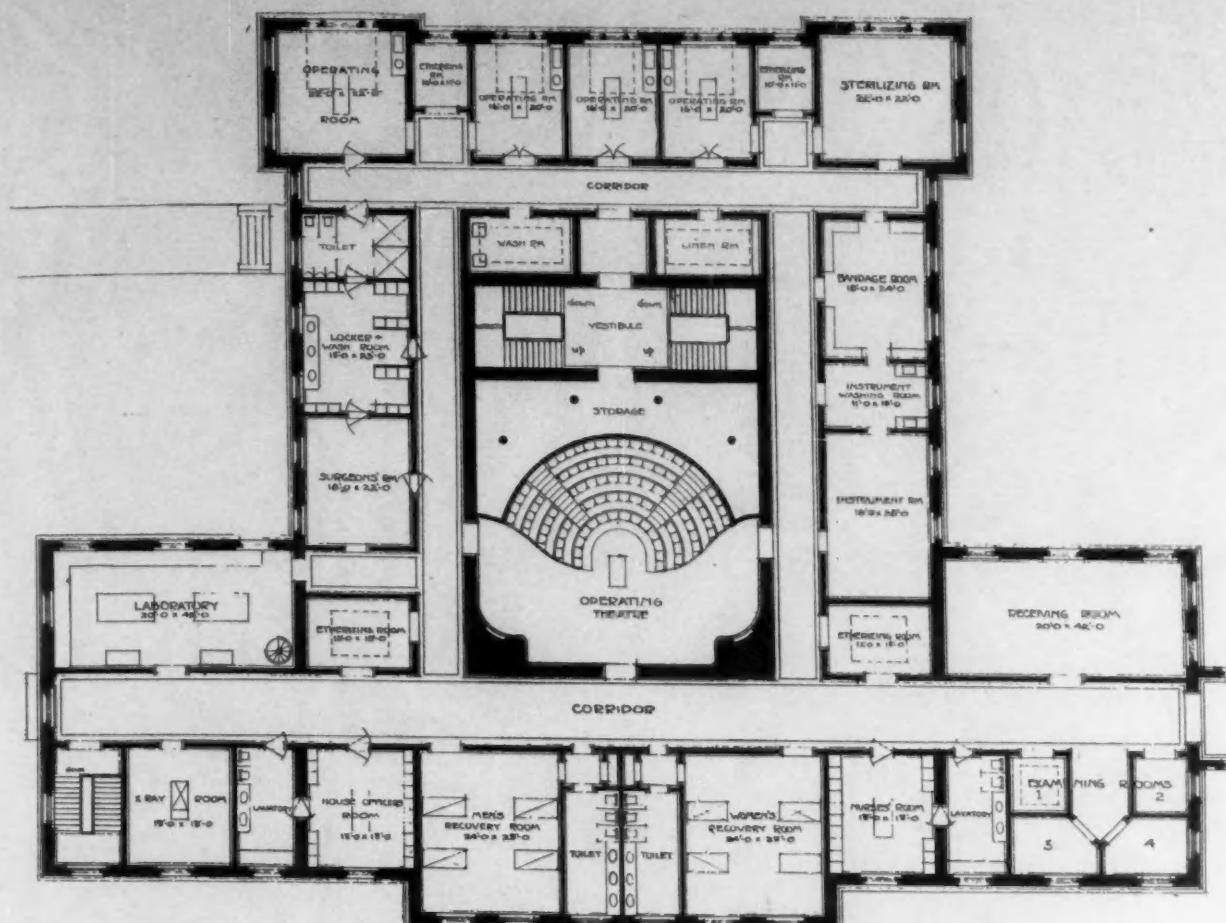
COMPETITIVE DESIGN OF MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA, AT WASHINGTON.
CHASE & AMES AND LEON E. DESSEZ, ASSOCIATE ARCHITECTS.

1950
1951
1952
1953
1954

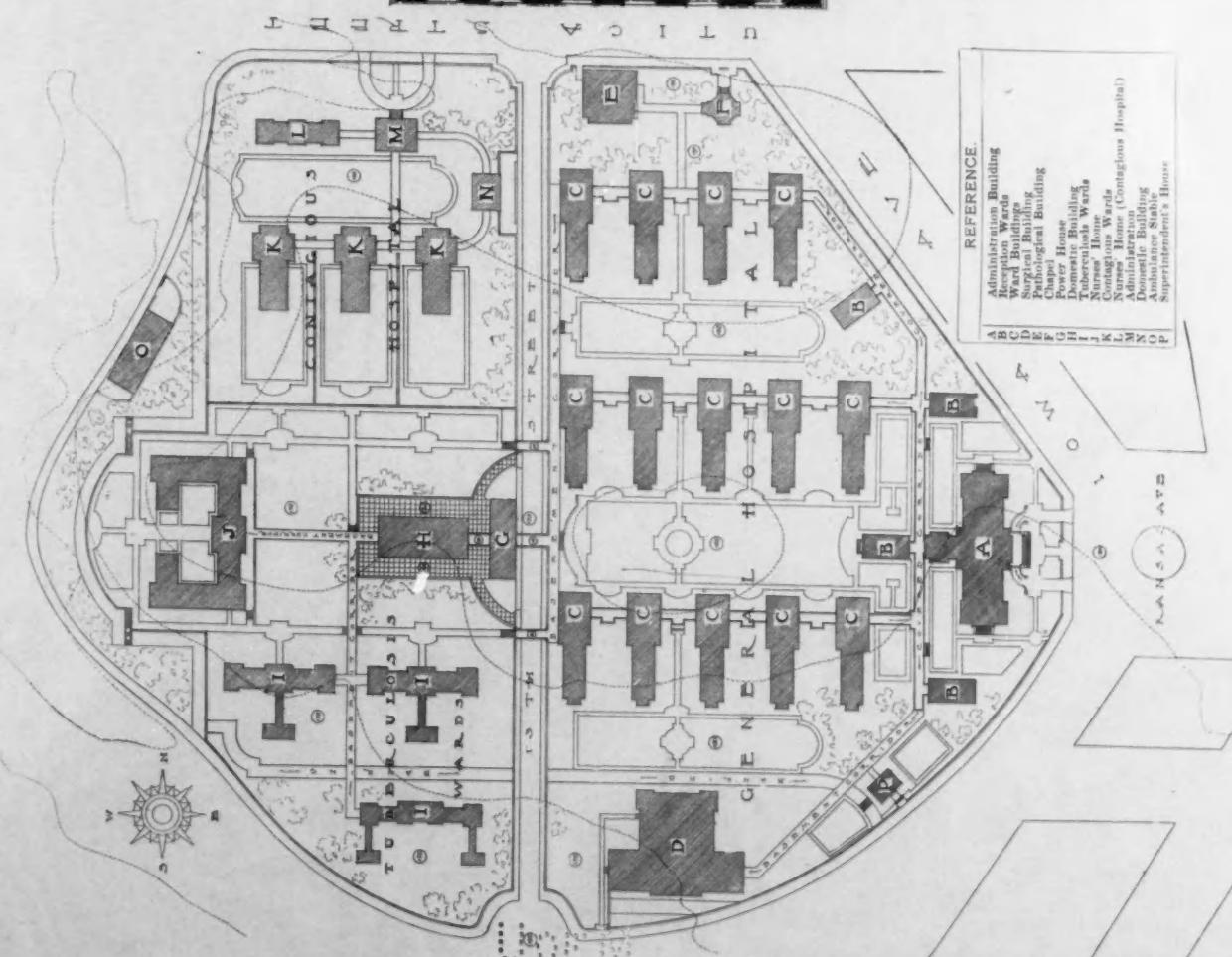
THE BRICKBUILDER.

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PLATE 22.



BIBLIOGRAPHICAL BIBLIOGRAPHY



GROUND PLAN.

FIRST HONORABLE MENTION.

MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA
CHASE & AMES AND LEON E. DESSEZ, ASSOCIATE ARCHITECTS.

M700



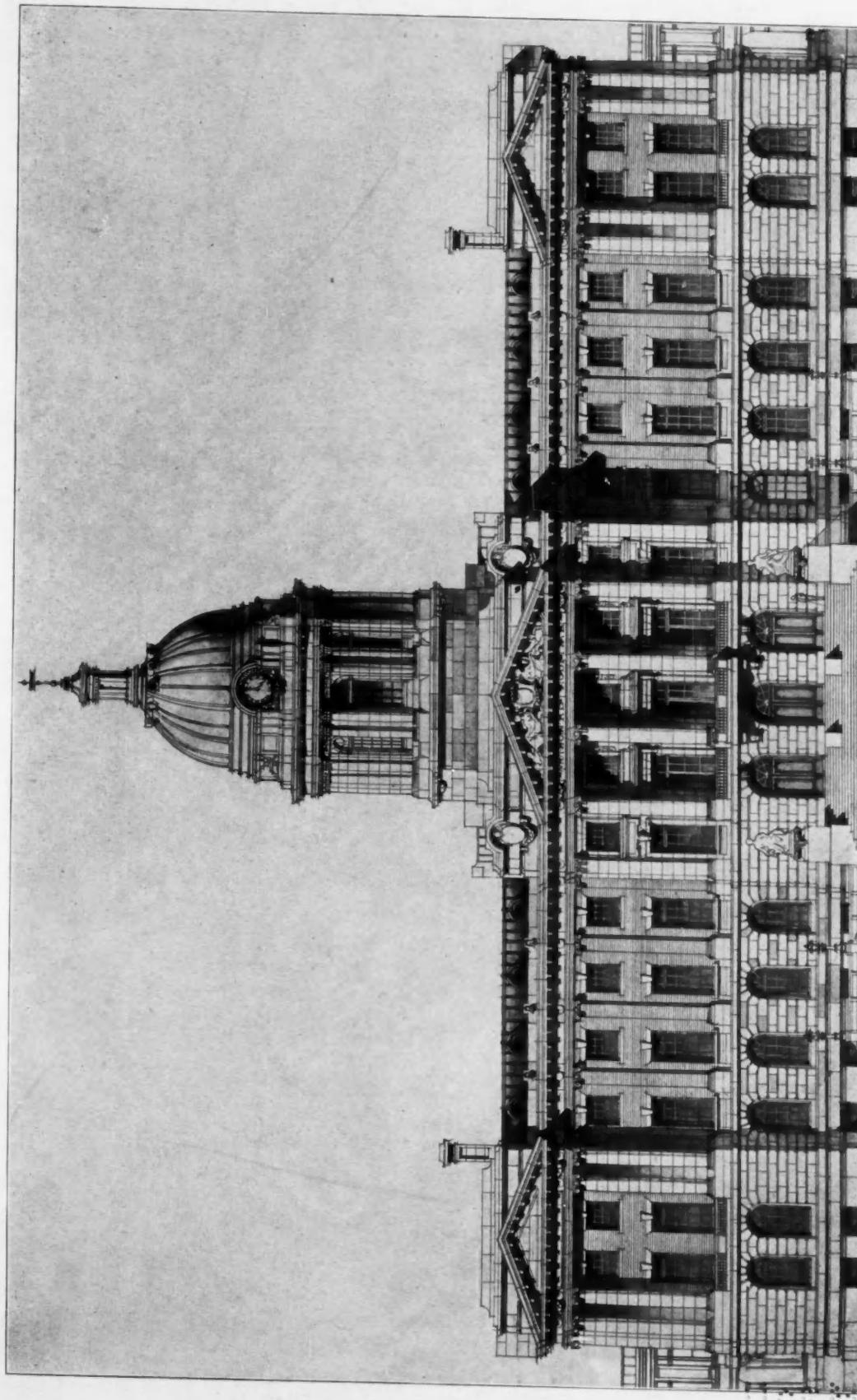
MEMORIAL HOSPITAL AND SANITORIUM, MONTAGUE CITY, MASS.

PLANS ILLUSTRATED IN THE BRICKBUILDER FOR JUNE, 1900, PLATES 44 AND 45.

WILSON EYRE, JR., ARCHITECT.

THE BRICKBUILDER,
MARCH,
1902.

M 10 U



FRONT ELEVATION, ADMINISTRATION BUILDING.

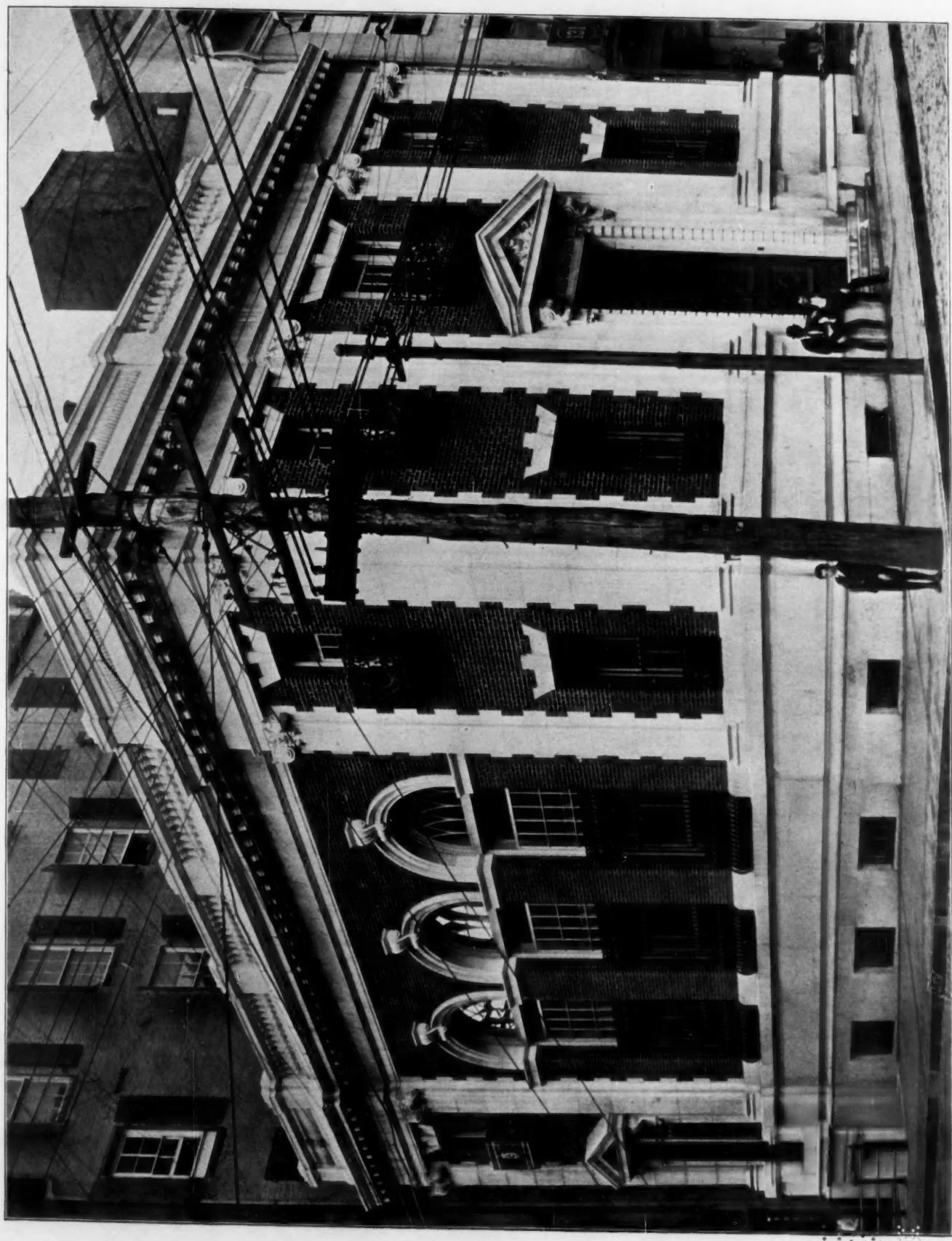
FIRST HONORABLE MENTION.

COMPETITIVE DESIGN OF MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA, AT WASHINGTON.

CHASE & AMES AND LEON E. DESSEZ, ASSOCIATE ARCHITECTS.

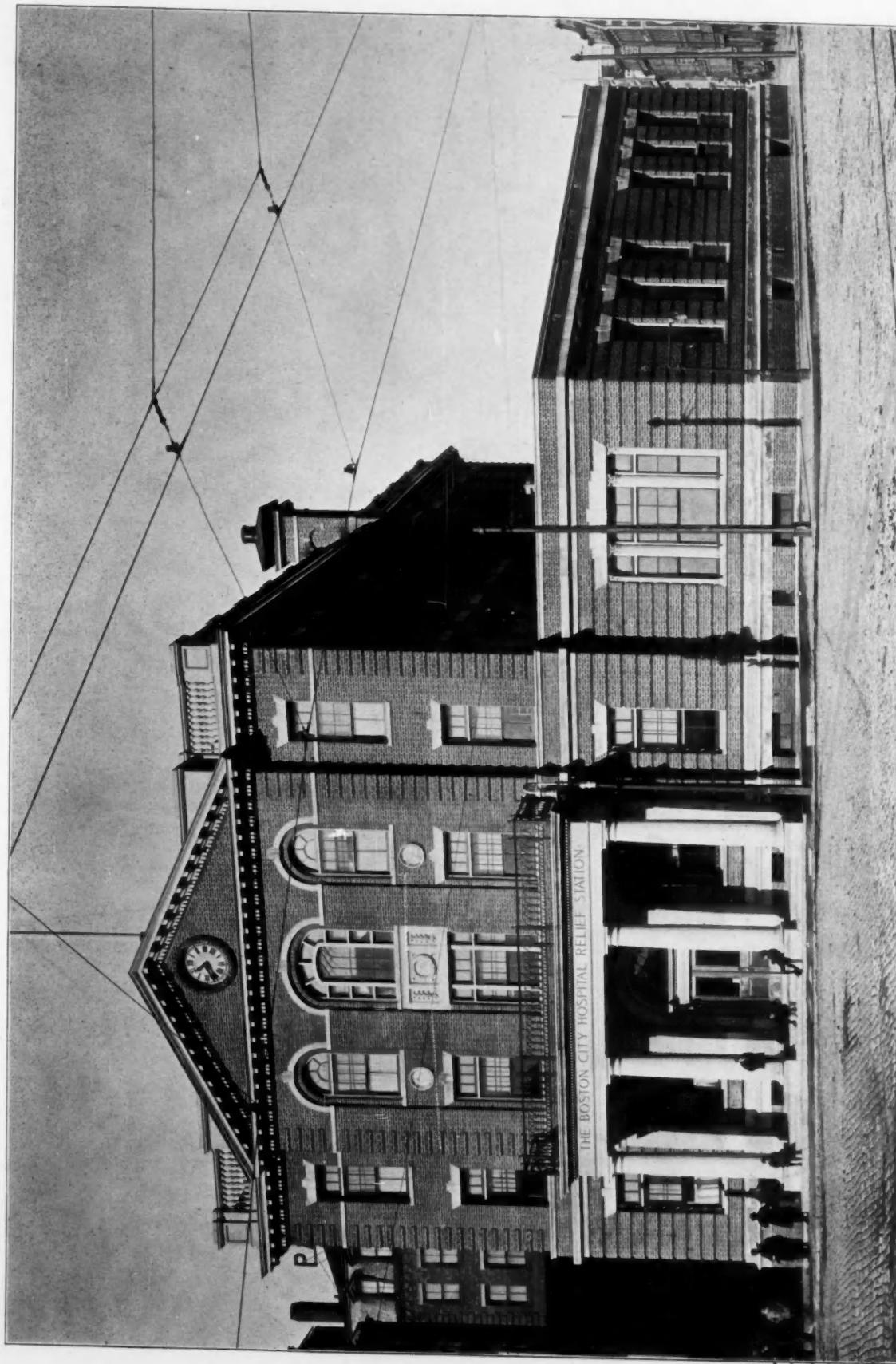
THE BRICKBUILDER,
MARCH,
1902.

1975
1976
1977
1978
1979



BANK BUILDING FOR ALEX. BROWN & SONS BALTIMORE, M.D.
PARKER & THOMAS, ARCHITECTS.

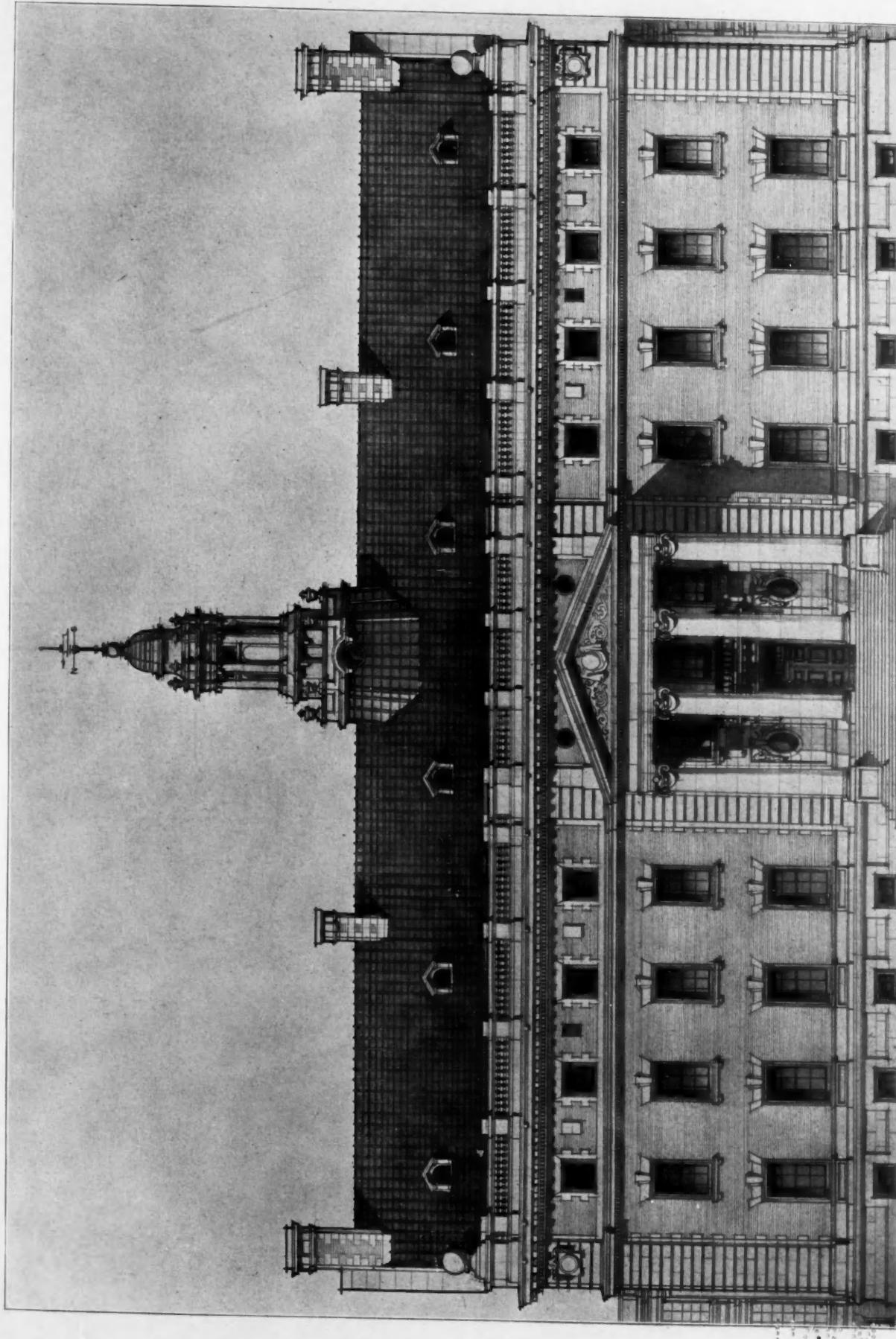
THE BRICKBUILDER,
MARCH,
1902.



THE BOSTON CITY HOSPITAL RELIEF STATION

BOSTON CITY HOSPITAL RELIEF STATION, HAYMARKET SQUARE, BOSTON, MASS.
KENDALL, TAYLOR & STEVENS, ARCHITECTS.

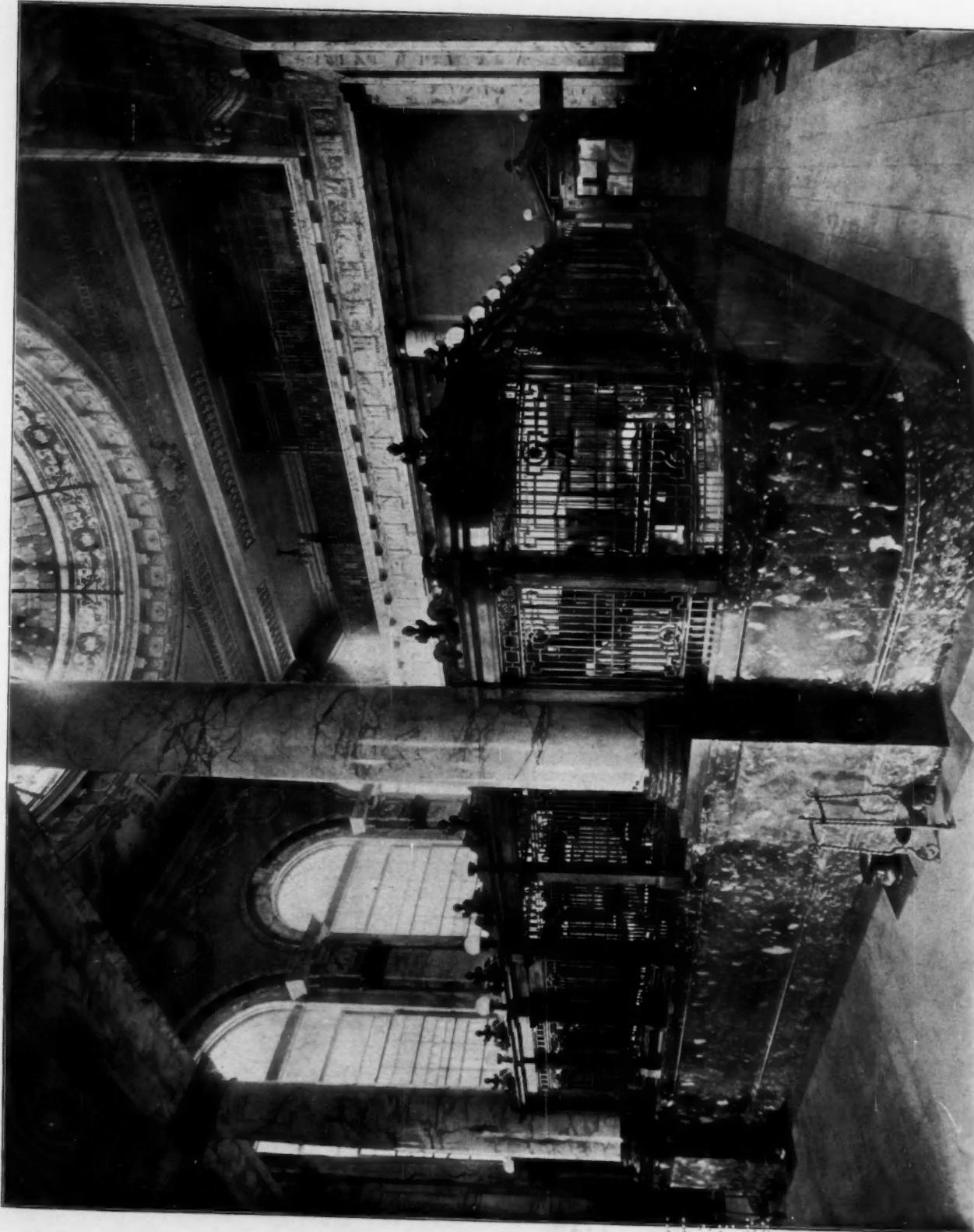
THE BRICKBUILDER,
MARCH,
1900.



COMPETITIVE DESIGN OF MUNICIPAL HOSPITAL FOR THE DISTRICT OF COLUMBIA, AT WASHINGTON.
BORING & TITON, ARCHITECTS.

FRONT ELEVATION, ADMINISTRATION BUILDING.

THE BRICKBUILDER,
MARCH,
1902.



INTERIOR, BANK BUILDING FOR ALEX. BROWN & SONS, BALTIMORE, MD.
PARKER & THOMAS, ARCHITECTS.

THE BRICKBUILDER,
MARCH,
1902.

